

Surgeon General's Office

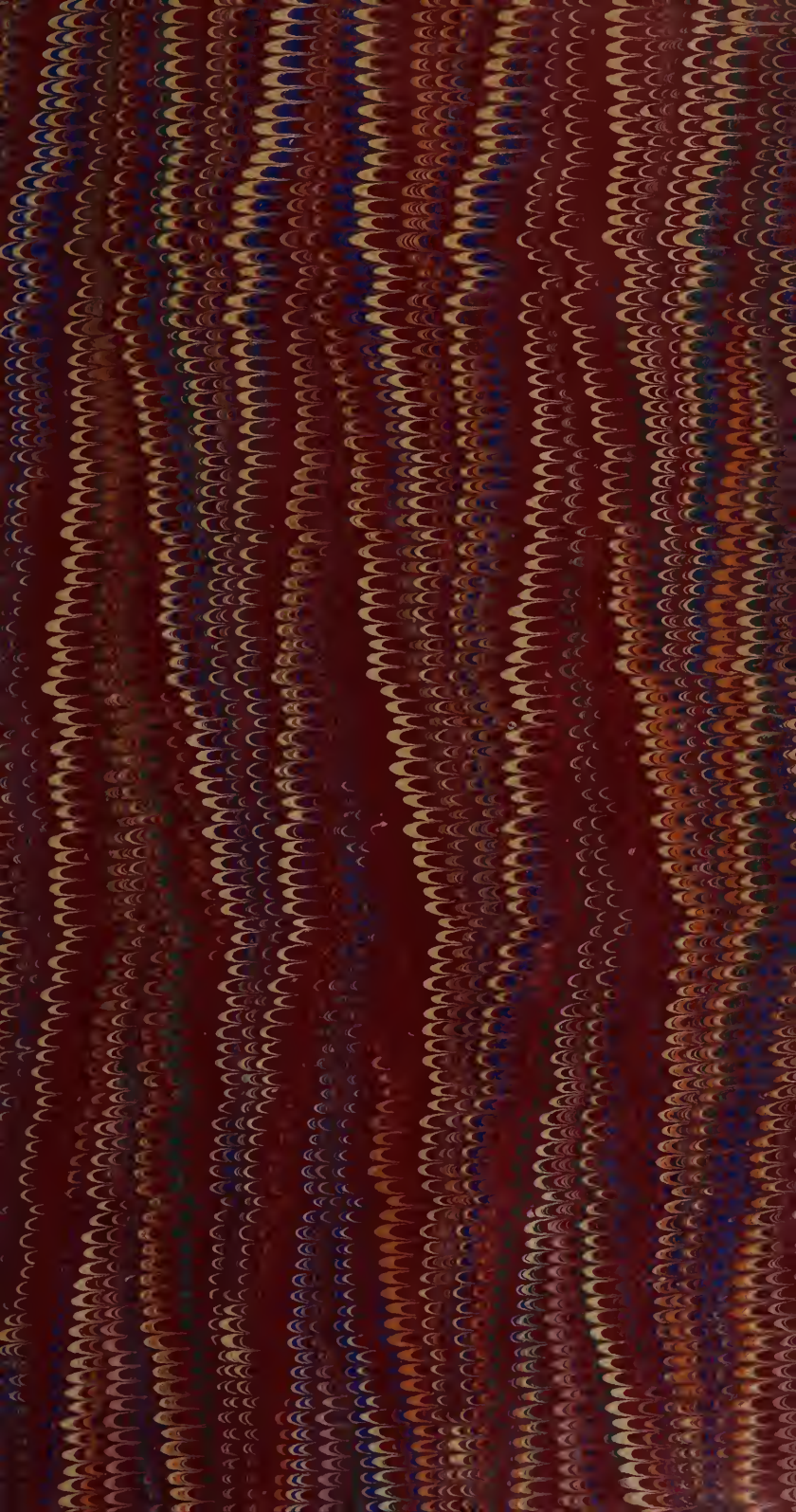
LIBRARY

Section,

Juris (Med)

No.

70475



ELEMENTS OF MEDICAL JURISPRUDENCE.

BY
THEODRIC ROMEYN BECK, M. D.

Professor of the Institutes of Medicine and Lecturer on Medical Jurisprudence in the College of Physicians and Surgeons of the Western District of the State of New-York, &c. &c.

PROPERTY: REPUTATION; LIFE; OFTEN REST ON THE PROFESSIONAL
EVIDENCE OF MEDICAL PERSONS."

London Medical Repository.

IN TWO VOLUMES.

VOL. I.

ALBANY:

PRINTED AND PUBLISHED BY WEBSTERS AND SKINNERS, AND FOR SALE
AT THEIR BOOKSTORE, CORNER OF STATE AND PEARL-STREETS,
AND BY F. W. SKINNER & CO. NO. 38, STATE-STREET.

1823.

London Genl's Office
70475

NORTHERN DISTRICT OF NEW-YORK, ss.



BE it remembered, that on the twenty-third day of August, in the forty-eighth year of the independence of the United States of America, A. D. 1823, WEBSTERS & SKINNERS of the said district, have deposited in this Office the title of a Book, the right whereof they claim as proprietors, in the words following, to wit: Elements of Medical Jurisprudence, by Theodric Romeyn Beck, M. D. Professor of the Institutes of Medicine and Lecturer on Medical Jurisprudence in the College of Physicians and Surgeons of the Western District of the State of New-York, &c. &c. "Property, reputation, life, often rest on the professional evidence of medical persons."—London Medical Repository. In two volumes. In conformity to the act of the Congress of the United States, entitled "An act for the encouragement of learning, by securing the copies of Maps, Charts, and Books, to the authors and proprietors of such copies, during the times therein mentioned;" and also, to the act entitled "An act supplementary to an act entitled 'An act for the encouragement of learning, by securing the copies of Maps, Charts, and Books, to the authors and proprietors of such copies during the times therein mentioned,' and extending the benefits thereof to the arts of Designing, Engraving and Etching Historical and other Prints."

RICHARD R. LANSING,
Clerk of the N. District of New-York.

TO THE

MEDICAL PROFESSION

THROUGHOUT THE UNION,

THIS WORK

IS RESPECTFULLY INSCRIBED,

BY THE

AUTHOR.



PREFACE.

AFTER several years of diligent investigation, I venture to offer the following work to the notice of the public. Whether its execution is adequate to the importance of its subject, must be decided by a candid and enlightened community.

At an early period of my medical life, I became impressed with the necessity of greater attention to the science of MEDICAL JURISPRUDENCE, than is usually devoted to it by physicians. The writings in the English language on the subject, were at that time, confined to a small duodecimo volume, together with some detached essays on particular points, and I soon ascertained that in order to learn what had been accomplished in this branch of learning, I must resort to the study of continental authors. But my inland situation, and the embarrassed state of the commerce of the country, seemed to present obstacles almost insurmountable to the acquisition of the systematic writers in question.

During the late war, however, a respected relative, (the Rev. DR. ROMEYN of New-York,) while abroad, procured from different quarters, the principal French authors on Medical Jurisprudence, and on his return,

I had the pleasure of commencing its study with suitable materials.

Some years thereafter, my friend Dr. John W. Francis, also visited Great Britain and France, and kindly undertook to procure for me whatever might come within his observation on the science.

My appointment in the WESTERN MEDICAL COLLEGE, rendered what had previously been a private study, a public duty; and I began to flatter myself that a publication on the subject might be found useful. The increasing attention to the science in Great Britain and this country, with the great facilities that of late years, have offered themselves, for obtaining scientific works from abroad, has encouraged me to prosecute my undertaking to its present termination.*

This brief sketch of the origin and progress of the present work, will not, I hope, be deemed impertinent. At all events, I feel a pleasure in thus publicly acknowledging the aid I have received.

I might add to the names already mentioned, a number of others, particularly in this city, that have allowed me free access to their libraries, or directed my researches to points with which I was least familiar. Were I to enumerate all of these, it might savour of ostentation, and I will content myself with returning them my sincere thanks for their liberality and the

* I am under peculiar obligations to Mr. James Eastburn of New-York, for his attention in obtaining from time to time, comparatively rare works from Germany and France.

kind encouragement with which they have frequently cheered me.

My medical friends in this city and in New-York, no less deserve my grateful acknowledgments ; and I must not omit noticing the advantages derived from consulting many valuable works in the State Library, and the Libraries of the Society for the promotion of Useful Arts, and of the Western Medical College.

In concluding these prefatory remarks, I may be permitted to add, that although this work is designed primarily for the benefit of Physicians, yet, I trust, it may occasionally be found useful to the gentlemen of the Bar. It need hardly be suggested, that in many instances, a legal decision depends on the testimony of medical witnesses, and it may not only prove a matter of satisfaction, but even a solid gain to the cause of justice, to be enabled to compare oral opinions, with the prevailing doctrines of the profession. Of such importance, is the subject of Medical Jurisprudence at present considered, that in the latest work that has been published in England on it, an eminent barrister has been associated with a no less eminent practitioner.*

Should the present treatise be so fortunate as to meet with the approbation of the public, I design at

* "MEDICAL JURISPRUDENCE by J. A. PARIS, M. D. F. R. S. and J. S. M. FONBLANQUE, Esq. Barrister at Law. London, 1823." I received a copy of this work in the month of July, after about half of my own was printed, and all except a few pages was written. Having consulted the same authorities, it was to be expected that the leading outlines of the science would be similarly treated, and on minor points, I am happy to find that in several instances, I have arrived at the same results with Dr. Paris. What may be deemed his strictly original enquiries, had already appeared in the PHARMACOLOGIA, and to this, I have given due credit.

no very distant period, to offer another on **MEDICAL POLICE**. The materials for both, have been in some degree, simultaneously collected.

Albany, August 30, 1823.

CONTENTS OF VOL. I.

CHAPTER I.

FEIGNED DISEASES.

Objects for which diseases are feigned. Diseases most readily feigned. General rules for their detection. Diseases that have been feigned. Alteration of the pulse—altered state of the urine—hæmaturia—incontinence of urine—suppression of urine—maiming and deformity—dropsy and tumours of various kinds—excretion of calculi—ulcers—hæmoptysis—hæmatemesis—jaundice and cachexia—fever—pain in various parts—syncope and hysteria—diseases of the heart—apoplexy—paralysis—epilepsy—convulsions—catalepsy—nostalgia—near-sightedness—ophthalmia—blindness—deafness, with or without dumbness. Of impostors. Feigned abstinence. 1

CHAPTER II.

DISQUALIFYING DISEASES.

Disqualifications in civil cases—in criminal cases. Disqualifications for military service. Classes exempted by the law of the United States. Law of the state of New-York on exemption from military duty. Regulations in Great Britain concerning diseases which disqualify from military duty. Regulations for exemption in France. Tables of diseases which exempt from military duty in that country. Report on this subject to the legislature of the state of New-York by the surgeon-general. Laws on the giving of certificates. 30

CHAPTER III.

IMPOTENCE AND STERILITY.

Laws of various countries concerning impotence as a cause of divorce—Roman law—canon law—ancient French law—Napoleon code—English law. Causes of impotence in the male—absolute—curable—accidental or temporary causes. English and French law on accidental causes as affecting paternity. Diseases that may produce temporary impotence. Causes of impotence in the female—incurable and curable. Sterility—incurable and curable—causes. American law on impotence as a cause of divorce. 43

CHAPTER IV.

DOUBTFUL SEX.

Denial of the existence of hermaphrodites in the ancient sense of the term. Notice of the various mal-conformations that have been observed. 1. In-

dividuals exhibiting a mixture of the sexual organs, but neither of them entire. 2. Males with unusual formations of the urinary and generative organs. 3. Females with unusual formations of the generative organs. Ancient laws concerning hermaphrodites—English common law concerning them. 60

CHAPTER V.

RAPE.

Signs of virginity—opinion of anatomists concerning them. 2. Signs of defloration and rape. Diseases that may be mistaken for the effects of violence. Possibility of consummating a rape. False accusations. Appearances when death has followed violation. 3. Laws of various countries as to the violation of children under ten years of age. Credibility of witnesses in these cases. Laws of various countries concerning rape. Discussion as to the circumstances which constitute the crime in law. 4. Whether the presence of the venereal in the female should invalidate her accusation. Of rape during sleep without the female's knowledge. Of pregnancy following rape. Law on this point. 72

CHAPTER VI.

PREGNANCY.

1. Laws of various countries concerning the presence of pregnancy in civil and in criminal cases.—2. Signs of real pregnancy. Uncertainty to which they are liable. Quickening—explanation of it. Impropriety of relying on any single proof of pregnancy. Concealed pregnancy. Moles. Hydatis. Pretended pregnancy.—3. Superfœtation. Cases which are deemed instances of it—explanation of them by the opponents of this doctrine. Its application in legal medicine.—4. Whether a female can become pregnant without her knowledge, and remain ignorant of it until the time of labour. Cases in which this has been deemed possible. 103

CHAPTER VII.

DELIVERY.

PART I.—1. Signs of delivery—period within which the examination should be made. Concealed delivery. Pretended delivery—modes in which it may present itself. Appearances on dissection indicative of a recent delivery. Corpora lutea—their value as a proof of impregnation. Medico-legal cases.—2. Possibility of delivery without the female being conscious of it. Whether a female, if alone and unassisted, can prevent her child from perishing after delivery.

PART II.—1. Signs of the death of the child, before and during delivery.—2. Signs of the maturity or immaturity of the child—its appearance, size, length, and weight at various periods during pregnancy. Weight of infants born at the full time—length. Characters which mark the maturity of the child.—3. The state necessary to enable the new-born infant to inherit—its capability of living—the time when it is generally deemed capable. Laws of various countries as to what constitutes life in the infant, and thus enables it to inherit—Roman, French, English, and Scotch laws. Medico-legal cases. Infants extracted by the cesarean operation—their capability of inheriting. Laws on this subject. How far deformity incapacitates from inheriting. Monsters. Laws on this subject. 136

CHAPTER VIII.

INFANTICIDE.*

1. History of infanticide among different nations, ancient and modern. 2. Definition of infanticide—of the murder of the fœtus in utero, or criminal abortion—period at which the fœtus is to be considered as possessing life—proofs of abortion derived from an examination of the living and dead mother—causes of abortion, criminal and involuntary—examination of the fœtus. 3. Of the murder of the child after it is born—proofs of infanticide derived from an examination of the child—proofs of the blood having circulated after birth—(a) appearance of the blood—(b) ecchymosis—proofs of respiration having taken place after birth—(a) of the floating of the lungs in water—examination of the objections to this test—(b) Ploucquet's test—examination of objections to this test—(c) Daniel's test—(d) descent of the diaphragm—(e) diminution of the size of the liver—(f) discharge of the meconium—(g) state of the urinary bladder—Capability of the child's living after birth—The various means used for perpetrating infanticide—infanticide by omission—infanticide by commission. 4. Of the method of conducting anatomical examinations in cases of infanticide. 5. Prevention of infanticide—history of legislation on the subject of infanticide—foundling hospitals. 184

CHAPTER IX.

LEGITIMACY.

1. Of the ordinary term of gestation—whether uniform or not. Variation observed among animals in the term of gestation. Causes which, it is supposed, may vary it in the human species—fallacy of these suppositions. 2. Premature delivery. Inquiry as to the period within which a mature child should be deemed legitimate. 3. Protracted delivery. Remarkable cases of it in ancient Rome, in France, and Germany. Cases which have given rise to medical controversy. 4. Laws of various countries on the subject of legitimacy—Roman, ancient French, Prussian, modern French, Scotch, and English laws—decisions under them. 5. Questions relating to paternity and filiation. Paternity of children where the widow marries immediately after the death of her husband. Cases that have occurred in the Roman courts—in the English courts. English law on this subject. Similitude and colour as evidences of paternity. 288

CHAPTER X.

PRESUMPTION OF SURVIVORSHIP.

1. Of the survivorship of the mother or child, when both die during delivery. Cases that have been decided in Germany—in France—in the state of New-York. 2. Of the presumption of survivorship of persons of different ages destroyed by a common accident. Laws on this subject. Roman—ancient French—Napoleon code—English. Cases that have occurred under each. Propriety of having fixed laws on this subject. 308

* I am indebted for this chapter to my brother, John B. Beck, M.D. of New-York

CHAPTER XI.

AGE AND IDENTITY.

1. Notice of some questions in which the testimony of medical men may be required as to the age of an individual—the age at which he is considered capable of committing certain crimes. The period of absence that is considered as presumptive proof of a man's death. Decisions on this subject in England—in the state of New-York. Age beyond which pregnancy is impossible—Cases. 2. Identity. Cases where physicians may be required to identify individuals by physical marks. Remarkable instances in France—Martin Guerre—Francis Noiseu—Sieur de Caille—Baronet. Effects of age in altering the personal appearance. Remarkable instances of disputed identity at New-York—in England. 324

CHAPTER XII.

MENTAL ALIENATION.

1. Of the symptoms that constitute a state of insanity. Division of insanity into mania—monomania or melancholy—dementia—and idiotism. *Mania*. Precursory symptoms. Symptoms—state of the countenance—language and actions—disordered appetite—state of the stomach and bowels—condition of the tongue and pulse—insensibility to cold and heat—perversion of the senses—the ear—the eye—the smell, taste, and touch—wakefulness—loss of memory—pusillanimity. Duration of a paroxysm. *Monomania*. Its character. Danger of suicide or violence from the insane of this class. *Melancholy*. Age most liable to it. Symptoms—peculiar cast of countenance—state of the eye—concentration of the thoughts on one idea—fixed position of the body—condition of the pulse—of the skin, tongue, and bowels—peculiar odour. Sanity on subjects not connected with the morbid impression. Length of time that this impression remains. General exemption of infancy from attacks of mania and melancholy. *Dementia*. Generally a consequence of mania and melancholy. Its characteristics. *Idiotism*. Its frequency in some countries, as the Valais and Carinthia—Cretins. Characteristics of idiotism—deformity of the skull—peculiar countenance—affection of various senses. Its complication with other diseases. Other forms of insanity. General causes of it. 2. Of feigned and concealed insanity. Rules for their detection. Remarkable instances of the latter. 3. Legal definition of a state of mental alienation, and the adjudications under it. Common law of England as to idiots and lunatics in civil cases—in criminal cases. Law of the state of New-York in the same cases—method of proving a person a lunatic—method of proving his recovery. Lucid interval—ancient meaning of this term—definition of it at the present day by D'Aguesseau—Dr. Percival—Dr. Haslam—Lord Thurlow—objections of Lord Eldon to the opinion of the latter—application of the term in criminal cases—difficulties on the subject. 4. Inferior degrees of diseased mind. Delirium of fever. Hypochondriasis. Hallucination. Epilepsy. Nostalgia. Intoxication—its presence does not excuse from the guilt of crimes—a frequent cause of insanity. Old age. 5. Of the state of mind necessary to constitute a valid will—legal requisites—nuncupative wills—wills disposing of personal property—testaments. Persons who cannot make valid wills. Diseases which incapacitate an individual from making a will. 6. Of the deaf and dumb—their capacity, and the morality of their actions—are to be judged of according to their understanding. A person born deaf, dumb and blind, is deemed an idiot—if he become so, a *non compos*. A deaf and dumb person may be a witness—may obtain possession of real estate—may be tried for crimes. Cases of each. 334

CATALOGUE OF BOOKS REFERRED TO.

As many of the systematic works on medical jurisprudence, together with several periodical publications, are very frequently quoted in the ensuing pages, I conceived it would be preferable to give a catalogue of them in the commencement of the work. I shall thus be enabled to render the subsequent references more concise. The words in italics at the commencement of every title, are used in the body of the work.

- American Medical Recorder.* Conducted by Drs. Eberle, Ducachet, &c. &c. (Commenced in 1818.) 5 vols. 8vo. Philadelphia. (1818 to 1823.)
- American Philosophical Society,* held at Philadelphia—Transactions of. 7 vols. 4to. Philadelphia. (1786 to 1818.)
- Annals.* Annals of Philosophy, or Magazine of Chemistry, Mineralogy, Mechanics, &c. By Thomas Thomson, M.D. F.R.S. &c. 16 vols. 8vo. London. (1813 to 1820.)
- Annals, N. S.* Annals of Philosophy, New Series. By Richard Phillips. 4 vols. 8vo. London. (1821, 1822.)
- Baillie.* The Morbid Anatomy of the Human Body. By Matthew Baillie, M.D. F.R.S.
- Ballard.* See Metzger.
- Bartley.* A Treatise on Forensic Medicine, or Medical Jurisprudence. By O. W. Bartley, M.D. Bristol. 1815. 12mo.
- Barton's Medical Botany,* or Vegetable Materia Medica of the United States, &c. By W. P. C. Barton, M.D. Surgeon in the U. S. Navy, and Professor of Botany in the University of Pennsylvania. 2 vols. 4to. Philadelphia. 1817 and 1818.
- Barton's Medical and Physical Journal.* The Philadelphia Medical and Physical Journal, collected by Benjamin S. Barton, M.D. Professor of Materia Medica in the University of Pennsylvania. 3 vols. 8vo. Philadelphia. 1805 to 1809.
- Beckmann.* A History of Inventions and Discoveries. By John Beckmann, Public Professor of Economy in the University of Gottingen. Translated from the German, by William Johnston. 4 vols. 8vo. London. 1797. 4th vol. 1814.
- Belloc.* Cours de Medicine Legale, theorique et pratique; ouvrage utile, non-seulement aux medecins et aux chirurgiens, mais encore aux juges et aux jurisconsultes. Par J. J. BELLOC, Medicin Operant, Professeur particulier de Medicine et Chirurgie; Membre de la Societe d'Agriculture, Sciences et Arts, seante a Agen; Correspondant de la Societe de Medicine, et de celle de L'Ecole de Paris, &c. &c. Seconde edition, corrigee et augmentee. 8vo. Paris. 1811.
- Bigelow's Medical Botany.* American Medical Botany; being a collection of the native medicinal plants of the United States, &c. By Jacob Bigelow, M.D. Rumford Professor, and Lecturer on Materia Medica and Botany, in Harvard University. 2 vols. 8vo. Boston. 1817—1819.
- Blatchford's,* (Thomas W.) Inaugural Dissertation on Feigned Diseases. New-York. 1817.
- Bohn, D. J.* Bohnii Anat. et Chirurg. Prof. Pub. Lips. De Renunciacione Vulnerum, seu Vulnerum Lethalium Examen, &c. Editio altera. Amstelodami. 1732. 12mo.
- Bostock.* A Vindication of the Opinions delivered in evidence by the Medical Witnesses for the Crown, on a late Trial at Lancaster for Murder. 8vo. Liverpool. 1808.

- Brande.* A Manual of Chemistry, &c. By William T. Brande, S.R.S. F.R.S.E. &c. &c. With notes and emendations by Wm. Jas. M'Neven, M.D. Professor of Chemistry, &c. New-York. 8vo. New-York. 1821.
- Brande's Journal.* A Journal of Science, Literature, and the Arts. Edited at the Royal Institution of Great Britain, (by William T. Brande, F.R.S. &c.) 8vo. 14 vols. I have used the American edition in my quotations from the first five volumes.
- Brande, ii.* (John Gothofredi.) Archiatri Quondam Regii, et in Academia Georgia-Augusta Professoris Medicinæ Ordinarii Celeberrimi MEDICINA LEGALIS sive FORENSIS; ejusdemque Prælectiones Academicæ in Hermannii Fried. Teichmeyer's Institutiones Medicinæ Legalis, edi curavit, notis quibusdam, et indice locupletissimo auxit F. GOTTLIEB MEIERUS, M.D. &c. &c. 4to. Hannoveræ. 1789.
- Burns.* The Principles of Midwifery, including the Diseases of Women and Children. By John Burns, Lecturer on Midwifery, and Member of the Faculty of Physicians and Surgeons, Glasgow. 8vo. London. 1809.
- Capuron.* La Médecine Légale relative à l'Art des Accouchemens. Par J. CAPURON, Docteur en Médecine de la Faculté de Paris; Professeur d'Accouchemens, des Maladies des Femmes et des Enfants; Membre de plusieurs Sociétés nationales et étrangères. 8vo. Paris. 1821.
- Causes Célèbres.* par Mejan. Recueil des Causes Célèbres, et les arrêts qui les ont décidées; rédigé par Maurice Mejan. Jurisconsulte, Membre de l'Athénée de la Langue Française. 18 vols. 8vo. Paris. 1808 to 1813.
- Chapman's Journal.* The Philadelphia Journal of the Medical and Physical Sciences. Edited by Nathaniel Chapman, M.D. Professor of the Institutes and Practice of Physic, &c. University of Pennsylvania. Commenced in 1820. 5 vols. 8vo. Philadelphia. (1820 to 1823.)
- Collinson on Lunacy.* A Treatise on the Law of Idiots, Lunatics, and other persons non compos mentis. By George Dale Collinson, A.M. of Lincoln's Inn, Barrister at Law. 2 vols. 8vo. London. 1812.
- Conquest.* Outlines of Midwifery, developing its principles and practice. By J. T. Conquest, M.D. F.L.S. &c. Second ed. 12mo. London. 1821.
- Cooper.* Tracts on Medical Jurisprudence; including FARR's Elements of Medical Jurisprudence, DEASE's Remarks on Medical Jurisprudence, MALE's Epitome of Juridical or Forensic Medicine, and HASLAM's Medical Jurisprudence, as it relates to Insanity; with a preface, notes, and a digest of the law relating to insanity and nuisance. By Thomas Cooper, Esq. M.D. Professor of Chemistry and Mineralogy in the University of Pennsylvania, &c. With an Appendix, &c. 8vo. Philadelphia. 1819. In quoting from this work, I have referred to each author, as I may have had occasion to notice him. Whenever any of the observations of Dr. Cooper are mentioned, I give him the proper credit.
- Dease.* Remarks on Medical Jurisprudence; intended for the general information of juries and young surgeons. By William Dease, Surgeon. (Inscribed to Lord Clonmel, Chief Justice of Ireland.) This is published in COOPER's Tracts, which see.
- De Haen.* (Antonii.) Consiliarii Aulici ac Medicinæ Practicæ in alma et antiquissima Universitate Vindobonensi, Professoris Primarii, RATIO MEDENDI in Nosocomio Practico Vindobonensi. 4 vols. 8vo. Leyden. 1761—1772.
- Denman.* An Introduction to the Practice of Midwifery. By Thomas Denman, M.D. &c. &c. With notes and emendations by John W. Francis, M.D. Professor of Obstetrics, &c. &c. New-York. 8vo. 1821.
- Dorsey.* Elements of Surgery, &c. By John Syng Dorsey, M.D. Adjunct Professor of Surgery in the University of Pennsylvania, &c. 2 vols. 8vo. Philadelphia. 1813.
- Duechel's* (Henry W.) Inaugural Dissertation on the action of Poisons. New-York. 1817.

- East.* A Treatise of the Pleas of the Crown. By Edward Hyde East, Esq. of the Inner Temple. 2 vols. 8vo.
- Eclectic Repertory*, and Analytical Review, Medical and Philosophical. Edited by a Society of Physicians. Philadelphia. 10 vols. 8vo. (1810 to 1820.)
- Edinburgh Medical Essays and Observations.* Published by a Society in Edinburgh. 5th edition. Edinburgh. 1771. 6 vols.
- Edinburgh Medical and Surgical Journal*, Exhibiting a concise view of the latest and most important discoveries in Medicine, Surgery, and Pharmacy. Edinburgh. 18 vols. 8vo. (1805 to 1823.)
- Edinburgh Philosophical Journal*, Exhibiting a view of the progress of discovery in Natural Philosophy, Chemistry, Natural History, Practical Mechanics, Geography, Statistics, and the Fine and Useful Arts. Conducted by Dr. Brewster and Professor Jameson. Edinburgh. 8 vols. 8vo. (1819 to 1823.)
- Farr.* Elements of Medical Jurisprudence; or a succinct and compendious description of such tokens in the human body, as are requisite to determine the judgment of a coroner, and courts of law, in cases of divorce, rape, murder, &c. To which are added, directions for preserving the public health. By Samuel Farr, M.D. 2d edit. London. 1814. 12mo.
- Fearne.* The Posthumous Works of Charles Fearne, Esq. Barrister at Law. Selected from the author's manuscripts, by Thomas M. Shadwell, of Gray's Inn, Esq. 8vo. London. 1797. (*See Presumption of Survivorship.*)
- Foderè.* Traité de Médecine Légale, et D'Hygiène Publique ou de Police de Santé, adapté aux codes de L'Empire Français, et aux Connaissances Actuelles, &c. Par F. E. FODERÉ, Docteur en Médecine. 2d édition. 6 vols. 8vo. Paris. 1813.
- Foderè Traité du Delire.* Traité du Delire appliqué à la Médecine, à la Morale, et à la Législation. Par F. E. FODERÉ, Professeur de Médecine Légale et de Police Médicale, à la Faculté de Médecine de Strasbourg, &c. 2 vols. 8vo. Paris. 1817.
- Francis' Denman.* See *Denman*.
- Godman.* The Western Quarterly Reporter of Medical, Surgical, and Natural Science. Supported by Physicians and Naturalists of the Western Country. Edited by John D. Godman, M.D. &c. &c. &c. 5 Nos. Cincinnati, (Ohio.) 1822. (*This work contains some very valuable essays on medical jurisprudence, translated from the French.*)
- Goodwyn.* The Connection of Life with Respiration; or an experimental inquiry into the effects of submersion, strangulation, and several kinds of noxious airs, on living animals, &c. By Edmund Goodwyn, M.D. 8vo. London. 1788.
- Gordon.* Tentamen Inaugurale Medicum de Arsenico, quam annuente, &c, pro gradu Doctoris, &c. Jacobus A. Gordon, Chirurgus, &c. 8vo. Edinburgh. 1814.
- Haller, Elementa Physiologiæ Corporis Humani.* Auctore Alberto V. Haller, Preside Societ. Reg. Scient. Gotting. &c. &c. 8 vols. 4to. Lausanne and Berne. 1757—1766.
- Harleian Miscellany*, The. 8 vols. 4to. London. 1745.
- Haslam's Medical Jurisprudence*, as it relates to *Insanity*, according to the Law of England. By John Haslam, M.D. late of Pembroke Hall, Cambridge, &c. See *Cooper's Tracts*.
- Haslam on Madness.* Observations on Madness and Melancholy; including practical remarks on those diseases, together with cases, &c. By John Haslam, late of Pembroke Hall, Cambridge, &c. 2d edition. 8vo. London. 1809.
- Hebenstreit*, (D. Jno. Ern.) In Universitate Lipsiensi Therapiæ Prof. Pub. Facultatis Medicæ Decani Urbis Physici, ANTHROPOLOGIA FORENSIS,

- sistens medici circa rempublicam, causasque dicendas officium, &c. 12mo. Leipsic. 1751.
- Hennen.* Principles of Military Surgery; comprising observations on the arrangement, police, and practice of Hospitals, &c. By John Hennen, M.D. F.R.S.E. Deputy Inspector of Military Hospitals. 2d edition. 8vo. Edinburgh. 1820.
- Henry.* The Elements of Experimental Chemistry. By William Henry, M.D. F.R.S. &c. The third American, from the sixth English edition, with notes by Professor Silliman of Yale College. 2 vols. 8vo. Boston. 1814.
- Highmore.* A Treatise on the Law of Idiocy and Lunacy. By A. Highmore, author of the Law of Mortmain, &c. 8vo. Exeter, (New-Hampshire.) 1822.
- Hill.* An Essay on the Prevention and Cure of Insanity; with observations on the rules for the detection of pretenders to madness. By George Nesse Hill, Medical Surgeon, &c. 8vo. London. 1814.
- Hosack.* The American Medical and Philosophical Register. Conducted by Drs. Hosack and Francis. 4 vols. 8vo. New-York. (1811 to 1814.)
- Hutchinson.* A Dissertation on Infanticide, in its relations to Physiology and Jurisprudence. By William Hutchinson, M.D. F.L.S. 8vo. pp. 100. London. 1820.
- Johnson.* An Essay on the Signs of Murder in new-born Children. Translated from the French of Dr. P. A. O. Mahon, Professor of Forensic Medicine in the Medical School of Paris, by Christopher Johnson, Surgeon, Lancaster; with a preface and notes. 8vo. Lancaster. 1813.
- Journal of Foreign Medical Science and Literature.* (The) (A continuation of the Eclectic Repository.) Conducted by Samuel Emlen, Jun. M.D. and William Price, M.D. 2 vols. 8vo. Philadelphia. (1821—1822.)
- Larrey.* Memoirs of Military Surgery, and Campaigns of the French Armies on the Rhine, in Corsica, Catalonia, Egypt, &c. &c. From the French of D. J. Larrey, M. D. First Surgeon of the Imperial Guard, &c. &c. By Richard Willmott Hall, M.D. Professor of Midwifery in the University of Maryland. 2 vols. 8vo. Baltimore. 1814.
- Le Clerc.* Essai medico-legal sur l'empoisonnement, et sur les moyens que l'on doit employer pour les constater. Par N. Le Clerc, Docteur en Medicine, ex Aide-Bibliothecaire de l'Ecole Speciale de Medicine de Strasbourg. 8vo. Paris. 1803.
- London Medical and Physical Journal.* Of this, I have only been enabled to consult detached volumes—from vol. 1 to 16, and from vol. 21 to 31 inclusive.
- London Medical Repository, Monthly Journal and Review.* Conducted at various times by Messrs. Burrows, Royston, and A. T. Thomson; and by Dr. Burrows and Mr. Thomson; and by Dr. Uwins, Mr. Palmer, and Mr. Gray. Commenced in 1814. 15 vols. 8vo. London. (1814 to 1822.)
- Louis.* Lettres sur la certitude des signes de la Mort; avec des observations et des experiences sur les Noyés. Par M. Louis, Conseiller, et Commissaire pour les extraits de l'Academie Royale de Chirurgie, &c. &c. Paris. 1752. 12mo.
- Louis' Memoire.* Recueil d'Observations d'Anatomie et de Chirurgie, pour servir de base à la theorie des lesions de la tete, par contre-coup. Nouvelle edition, on l'on a joint le Memoire contre la Legitimite des Naissances pretendues tardives, avec le Supplement au dit Memoire. Par M. Louis. Paris. 1788. 12mo.
- Löw, (Joh. Francisci,) &c. &c.* Theatrum Medico-Juridicum; continens variasque easque maxime notabiles, tam ad tribunalia ecclesiastico-civilia, quam ad medicinam forensem, pertinentes materias, &c. 4to. Norimbergæ. 1725.
- Ludwig, (D. C. Gottlieb.)* Ord. Med. in Acad. Lips. Decani, Institutiones Medicinæ Forensis Prælectionibus Academicis accommodatæ. 8vo. Leipsic. 1765.

- Mahon.* Medecine Legale, et Police Medicale, de P. A. O. Mahon, Professeur de Medecine Legale et de l'Histoire de la Medecine à l'Ecole de Medecine de Paris; Medecin en Chef de l'Hospice des Venèriens de Paris, &c. avec quelques notes de M. Fautrel, ancien Officier de Santé des Armées. 3 vols. 8vo. Paris. 1811.
- Magendie.* De l'Influence de l'Emetique sur L'Homme et sur les Animaux; Memoire lu à la premiere classe de l'Institut de France le 23 Août, 1813. Par M. Magendie, Docteur Medecin de la Faculté de Paris, Professeur, &c. 8vo. Paris. 1813. pp. 62.
- Male.* An Epitome of Juridical or Forensic Medicine, for the use of medical men, coroners and barristers. By George Edward Male, M.D. one of the Physicians to the General Hospital in Birmingham. (First published in 1816.) This work is quoted according to its paging in COOPER'S Tracts, which see.
- Marc.* Manuel D'Autopsie Cadaverique Medico-Legale, traduit de l'Allemand du Docteur Rose, sur la dernière edition, augmenté de notes, et de deux memoires sur la docimasia pulmonaire, et sur les moyens de constater la mort par submersion. Par C. C. H. Marc, Docteur en Medecine. 8vo. Paris. 1808. *All the references to this work are designated by the name of the editor.*
- Marshall.* Remarks on Arsenic, considered as a poison and a medicine, &c. &c. By John Marshall, Member of the Royal College of Surgeons in London. 8vo. London. 1817.
- Medical Commentaries.* Edinburgh. 20 vols. 8vo. (Edited by Andrew Duncan, Sen. M.D.) My references to the 19th and 20th volumes, are from the American edition, as the English copy which I used, only included the first eighteen volumes.
- Medical Transactions.* Published by the College of Physicians in London. 6 vols. 8vo. London. (1768 to 1820.)
- Medico-Chirurgical Review, and Journal of Medical Science.* Conducted by associated Physicians and Surgeons, and superintended by James Johnson, M.D. (Analytical Series.) 5 Nos. New-York. 1823.
- Medico-Chirurgical Transactions.* Published by the Medical and Chirurgical Society, London. 8vo. 11 vols. and vol. 12, part 1. (1809 to 1822.)
- Memoirs of Literature.* By Michael De La Roche. 8 vols. 8vo. 2d edit. London. 1722.
- Memoirs of the Medical Society of London,* instituted in the year 1773. 6 vols. 8vo. London. (1789 to 1805.)
- Metzger.* Principes de Medecine Legale ou Judiciare, traduits de l'Allemand du Docteur J. Dan. Metzger, et augmentés de notes par le Dr. J. J. Ballard, Medecin Ordinaire de la Grande Armée, &c. 8vo. Autun. 1812. The additions made by Ballard, are referred to him in my quotations.
- Michaelis.* Commentaries on the Laws of Moses, by the late Sir John David Michaelis, K.P.S. F.R.S. &c. Translated from the German by Alexander Smith, D.D. &c. 4 vols. 8vo. London. 1814.
- Monthly Journal of Medicine.* Containing selections from European Journals, the Transactions of Learned Societies, &c. (Commenced in 1823.) 1 vol. 8vo. Hartford. 1823.
- Morgagni.* The seats and causes of Diseases, investigated by Anatomy, &c. Translated from the Latin of John Baptist Morgagni, Chief Professor of Anatomy, and President of the University at Padua. By Benjamin Alexander, M.D. 3 vols. 4to. London. 1769.
- Morgagni, (Jo. Baptistæ.)* Opuscula Miscellanea. Folio. Venetiis. 1763.
- Moseley.* A Treatise on Tropical Diseases, on Military Operations, and on the Climate of the West Indies. By Benjamin Moseley, M.D. &c. 4th edition. 8vo. London. 1803.
- Murray.* A System of Chemistry; by John Murray, Lecturer on Chemistry, and on Materia Medica and Pharmacy. 4 vols. 8vo. Edinburgh. 1809.
- New-England Journal of Medicine and Surgery,* &c. 8vo. Boston. 11 vols (1812 to 1823.)

- New-York Medical and Physical Journal.* Edited by Drs. Francis, Dyckman, and Beck. (Commenced in 1822. 1 vol. and 2 Nos.)
- New-York Medical Repository.* Edited at various times by Drs. Mitchill, Miller, Smith, Pascalis, Akerly, Manley and Drake. 22 vols. 8vo. New-York. (1797 to 1822.)
- Orfila.* A General System of Toxicology; or a treatise on poisons drawn from the mineral, vegetable, and animal kingdoms, considered as to their relations with Physiology, Pathology, and Medical Jurisprudence. By M. P. Orfila, M.D. of the Faculty of Paris, Professor of Chemistry and Natural Philosophy. Translated from the French, by John A. Waller. 2 vols. 8vo. London. 1816-17.
- Orfila's Directions.* Directions for the treatment of persons who have taken poison, and those in a state of apparent death; together with the means of detecting poisons and adulterations in wine; also of distinguishing real from apparent death. By M. P. Orfila. Translated from the French, by R. H. Black, Surgeon. *First American edition.* 12mo. Baltimore 1819. I quote this as *Orfila's Directions*, to distinguish it from the former.
- Paris' Pharmacologia*, or the History of Medicinal Substances, with a view to establish the Art of Prescribing, and of composing Extemporaneous formulæ upon fixed and scientific principles, &c. by John Ayrton Paris, M.D. F.L.S. M.R.S. &c. From the fourth London edition. 8vo. New-York. 1822.
- Pelletan.* Clinique Chirurgicale ou Memoirs et Observations de Chirurgie Clinique, et sur d'autres objects relatifs a l'art de Guerir, par Ph. J. Pelletan, Chirurgien Consultant de ll. m.m. Imper. et Royal. &c. &c. &c. 3 vols. 8vo. Paris. 1820. The conclusion of the first volume contains several medico-legal memoirs.
- Percival's Essays.* Essays Medical, Philosophical, and Experimental. By Thomas Percival, M.D. &c. &c. vol. 1. Fourth ed. 8vo. Warrington. 1788.
- Percival's Medical Ethics.* Medical Ethics; or a code of Institutes and Precepts, adapted to the professional conduct of physicians and surgeons, &c. &c. By Thomas Percival, M.D. F.R.S. London and Edinburgh, &c. 8vo. Manchester. 1803.
- Philosophical Transactions of the Royal Society of London*, from their commencement in 1665, to the year 1800; abridged with notes and biographical illustrations, by Charles Hutton, LL.D. F.R.S. George Shaw, M.D. F.R.S. and F.L.S. and Richard Pearson, M.D. F.S.A. London. 1809. 18 vols. 4to. *My references are all made to the original edition, and not to the paging as it stands in this abridgment.*
- Quarterly Journal of Foreign Medicine and Surgery*, and of the sciences connected with them. 4 vols. 8vo. London. Commenced in 1818 (1818 to 1823.)
- Republic of Letters.* Present state of the (conducted by Andrew Reid.) 16 vols. 8vo. London. (1728 to 1736.)
- Rose.* See Marc.
- Rush.* Medical Inquiries and Observations upon the Diseases of the Mind. By Benjamin Rush, M.D. Professor of the institutes and practice of medicine, and of clinical practice in the university of Pennsylvania. 8vo. Philadelphia. 1812.
- Rush's Introductory Lectures.* Sixteen Introductory Lectures to courses of Lectures upon the Institutes and Practice of Medicine, with a Syllabus of the latter, &c. By Benj. Rush, M.D. Professor, &c. 8vo. Philadelphia. 1811. (The sixteenth lecture is on the study of medical jurisprudence.)
- Schlegel.* Collectio Opusculorum Selectorum ad Medicinam forensam spectantium, curante Dr. Joan. Christ Traugott Schlegel, Medico apud Longo-Salissenses. 6 vols. 12mo. Lipsiæ. 1785-1791. As this work

contains many dissertations which I have referred to, merely by the names of the authors, I will here present the contents of each volume.

VOL. I.

1. *El Frider. Hiesteri* diss. de principum cura circa sanitatem subditorum.
2. *Burcard. Dau. Maucharti* diss. de inspectione et sectione legali, harumque exemplo speciali. R. *I. Mich. Salzer*.
3. *Phil. Conr. Fabricii* diss. exhib. præcipuas cautiones in sectionibus et perquisitionibus cadaverum humanorum pro usu fori observandas. R. *Vrb. Fr. Bened. Bruckmann*.
4. *Ioan. Traugott Adolphi* diss. de infanticidii notis sectione legali detegendis. Resp. *Henr. Christoph. Dreyer*.
5. *Laurent. Heisteri* diss. de summe necessaria inspectione cordis vasorumque majorum sub legali infantum sectione. R. *I. Dan Farenholz*.
6. *Ioan. Christoph. Andr. Mayeri* diss. sistens præcipua experimenta de effectibus putredinis in pulmones infantum ante et post partum mortuorum, subjunctis novis quibusdam experimentis circa pulmones infantum ante partum mortuorum institutis. Resp. *I. Godofr. Reimann*.
7. *Henr. Frider. Delii* diss. de sugillatione quatenus infanticidii indicium. Resp. *M. Ignat. Berger*.

VOL. II.

8. *Laurentii Heisteri* diss. qua partus tredecimestris pro legitimo habitus proponitur, et simul, partui nullum certum tempus in universum tribui posse, ostenditur. Resp. *Ioan. Gerard. Wagner*.
9. *Rud. Augustin. Vogel*. diss. de partu serotino valde dubio. Resp. *Ioan. Christoph. Harrer*.
10. *Ioan. Zachariae Platneri* progr. quo ostenditur, medicos de insanis et furiosis audiendos esse.
11. *Ioan. Christophor. Pohlii* progr. de lethalitate vulnerum lienis.
12. *Phil. Conr. Fabricii* diss. de lethalitate vulnerum ventriculi secundum principia anatomica et medica expensa. Resp. *Aegid. Iungen*.
13. *Petr. Imman. Hartmanni* diss. sistens medicam tormentorum aestimationem. Resp. *Frider. Adolph Delleffsen*.

VOL. III.

14. *Dr. Ernesti Gottl. Bose*, diss. prior de diagnosi vitæ fœtus et neogeniti. Resp. *Christoph Godofr. John*.
15. *Dr. Ern. Gottl. Bose*, diss. posterior de diagnosi vitæ fœtus et neogeniti. Resp. *Christl. Belke*.
16. *Dr. Ern. Gottl. Bose*, Progr. de judicio vitæ ex neogenito putrido.
17. *Joan. Dan. Reisseissen*, diss. de veneficio doloso. Auct. et Resp. *Joan. Franc. Ehrmann*.
18. *Joan. Franc. Ehrmann*, de veneficio culposo.

VOL. IV.

19. *Dr. Ern. Gottl. Bose*, Progr. de diagnosi veneni ingesti et sponte in corpore geniti.
20. *Dr. I. Dan. Metzger*, Progr. de veneficio caute dijudicando.
21. *Dr. Ern. Gottl. Bose*, diss. de vulnere per se lethali homicidam non excusante. Resp. *Ioan. Christ. Müller*.
22. *Dr. Ern. Gottl. Bose*, Progr. de sugillatione in foro caute diiudicanda.
23. *Dr. Phil. Conr. Fabricii*, Progr. quo causæ infrequentæ vulnerum lethalium præ minus lethiferis ex fabrica corporis humani anatomica et situ partium præcipue eruuntur.
24. *Dr. Joan. Ern. Hebenstreit*, Progr. de corpore delicti, medici secantis culpa, incerto.
25. *Dr. Christ. Gottfried. Gruneri*, diss. de causis melancholiæ et maniae dubiis in medicina forensi caute admittendis. Resp. *Martin. Ludov. Wiltwerk*.
26. *Dr. Burchard. Dav. Mauchart*, diss. de lethalitate per accidens. Resp. *Sigism. Palm*.

27. Dr. *Joan. Guilelm. Werner*, diss. qua evincitur, medicinam forensem præter differentiam, vulnere in absolute lethalia et per accidens distinguentem, nullam prorsus agnoscere. Resp. *Dav. Schulz*.
28. Dr. *Joan. Torkos*, diss. de renuntiatione lethalitatis vulnere ad certum tempus haud adstringenda.
29. Dr. *Joan. Bernard. Schnobel*, diss. de partu serotino in medicina forensi temere nec affirmando nec negando.
30. Dr. *Ant. Guilielm. Plaz*, Progr. de sostris.

VOL. V.

31. Dr. *Abrah. Vater* diss. qua valor et sufficientia signorum infantem recens natum vivum aut mortuum editum arguentium ad dijudicandum infanticidium examinantur. Resp. *Ioh. Aug. Süßmilch*.
32. Dr. *Christ. Frid. Jaeger* diss. sistens observationes de fœtibus recens natis, jam in utero mortuis et putridis, cum subjuncta epicrisi. Resp. *Theoph. Conr. Christ. Storr*.
33. *EjUSD.* diss. qua casus et annotationes ad vitam fœtus neogoni dijudicandam facientes proponuntur. Resp. *Hercul. Dav. Hennenhofer*.
34. Dr. *Andr. Ottomar. Goelicke* specim. quo demonstratur, partum octimestrem vitalem esse et legitimum. Resp. *Georg, Frider. Stabel*.
35. Dr. *Georg. Aug. Langguth* diss. de fœtus ab ipsa conceptione animato, ad art. 123. C.C.C. Resp. *Christ. Gottl. Otto*.
36. Dr. *Dan. Wilh. Triller* diss. de mirando cordis vulnere post XIV. demum diem lethali. Resp. *Ioan. Traugott. Weitzmann*.

VOL. VI.

37. Dr. *Ludov. Henr. Leon. Hilchen* diss. de vulnere in intestinis lethalitate. Resp. *Frider Ludov. Nitsch*.
38. Dr. *Christ. Gottl. Ludwig* Pr. de luxatione vertebrarum colli a medico forensi circumspecte disquirenda.
39. Dr. *Petr. Imman. Hartmann* diss. de controversa pulmonum in declarandis infanticidiis æstimatione. Resp. *Mich. Orgovany de Fagaras*.
40. Dr. *Ioan. Henr. Schulze* diss. qua problema, an umbilici deligatio in nuper natis absolute necessaria sit, in partem negativam resolvitur. Resp. *Ioan. Car. Dehmel*.
41. Dr. *Christ. Ludov. Schael* diss. de funiculi umbilicalis deligatione non absolute necessaria.
42. Dr. *Philipp. Fischer* diss. an deligatio funiculi umbilicalis in neonatis absolute necessaria sit?
43. *Car. Aug. de Bergen* diss. de lethalitate vulnere hepatis. Resp. *Rud. Frider. Riedel*.

Silliman. The American Journal of Science and Arts, conducted by Benjamin Silliman, Professor of Chemistry, Mineralogy, &c. Yale College, &c. &c. 6 vols. 8vo. New-Haven. (1818 to 1823.)

Smith. The Principles of Forensic Medicine, systematically arranged and applied to British practice. By John Gordon Smith, M.D. 8vo. p. 503. London edition. 1821.

Stalpartii Van Der Wiel. Observationum Rariorum Medic. Anatomic, Chirurgicarum Centuria, prior and posterior. 2 vols. 12mo. Lugduni Batavorum. 1687.

State Trials. A complete collection of State Trials, and Proceedings for High Treason, and other crimes and misdemeanors. The fourth edition. With a preface by Francis Hargrave, Esq. 11 vols. folio. 1766 to 1781. N. B. *Emlyn's* and *Howell's* editions of the State Trials have also been consulted, and a few references will be found to each of them.

Struve. A Practical Essay on the art of recovering suspended animation, together with a review of the most proper and effectual means to be adopted in cases of imminent danger. Translated from the German of Christian Augustus Struve, M.D. 12mo. Albany, 1803

Ure. A Dictionary of Chemistry on the basis of Mr. Nicholson's, &c. by Andrew Ure, M.D. Professor of the Andersonian Institution, Glasgow, &c. First American edition, with notes by Prof. Hare and Dr. Bache. 2 vols. 8vo. Philadelphia. 1821.

Valentini (Michaelis Bernhardi) PANDECTÆ MEDICO-LEGALES sive Responsa Medico-Forensia, &c. &c. 2 vols. 4to. Francofurti ad Moenum. 1701.

Valentini (M. B.) Archiatri Hasso-Darmstatini. Phil. et Med. P.P. &c. &c. NOVELLÆ MEDICO-LEGALES, &c. &c. cum Supplemento Pandectarum Medico-Legalium. 4to. Francofurti ad Mœnum. 1712.

Zacchias. Pauli Zacchiæ, Romani, totius status Ecclesiastici Proto-medici generalis, QUESTIONUM MEDICO-LEGALIUM. Tomi tres, olim aucti et emendati a viro celeberrimo Joh. Daniel Horstio, nunc illustrati, emendati atque audacti a Georgio Franco, &c. &c. Folio. Francofurti ad Mœnum. 1688.

THE HISTORY OF THE

The history of the world is a subject of great interest and importance. It is a subject which has attracted the attention of men of all ages and of all nations. The history of the world is a subject which has been the subject of many different theories and opinions. Some have thought of it as a series of events, while others have thought of it as a process. Some have thought of it as a story, while others have thought of it as a science. The history of the world is a subject which has been the subject of many different theories and opinions. Some have thought of it as a series of events, while others have thought of it as a process. Some have thought of it as a story, while others have thought of it as a science. The history of the world is a subject which has been the subject of many different theories and opinions. Some have thought of it as a series of events, while others have thought of it as a process. Some have thought of it as a story, while others have thought of it as a science.

INTRODUCTION.

MEDICAL JURISPRUDENCE, Legal Medicine, or Forensic Medicine, as it is variously termed, is that science which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice. By some authors, it is used in a more extensive sense, and also comprehends **MEDICAL POLICE**, or those medical precepts which may prove useful to the legislature, or the magistracy. I shall employ it at this time in its restricted sense.*

Traces of this science are to be found as early as the institution of civil society. Thus in the Jewish law, indications of it may be observed in the distinction established between mortal wounds, and those not so, and in the inquiries prescribed in cases of doubtful virginity. Among the Egyptians, according to Plutarch, it was ordained, that no pregnant woman should suffer afflictive punishment—while the Romans, even from that early period in which Numa Pompilius flourished, grounded many of their laws on the authority of ancient physicians and philosophers. *Propter auctoritatem doctissimi Hippocratis*, is a phrase frequently met with in their decisions,† and the emperor Adrian, in extending the term of legitimacy from ten months, (the period fixed by the Decemvirs,) to eleven, was influenced, in so doing, by the prevailing sentiments of the physiologists of that day.‡ Some detached, but striking medico-legal facts, are also mentioned by the Roman historians. Thus, the bloody remains of Julius Cæsar, when exposed to public view, were examined by one Antistius, who declared, that out of twenty-three wounds which had been received, but one was mortal, and that had

* If a general term be necessary to include both these sciences, I should prefer that used by the Germans, viz. **STATE MEDICINE**.

† Belloc, p. 6.

‡ Foderè. Introduction, p. xiv.

penetrated the thorax, between the first and second ribs. The body of Germanicus was also inspected, and by indications conformable to the superstitions of the age, it was decided that he had been poisoned.*

The code of Justinian contains many provisions appertaining to this science, which we shall have frequent occasion to quote in the subsequent pages. Some of these provisions indeed are incorporated into the laws of almost every civilized country at the present day.

All the laws of the ancients, however, and all the facts drawn from their history, are to be considered as merely the first glimmerings of knowledge on this subject—and knowledge, too, founded on the imperfect diagnostics which medicine afforded at that early period. It was never ordained that physicians should be examined on any trial, until after the middle ages, and we are indebted to the emperor Charles the Fifth of Germany, for the first public enactment, prescribing it as necessary, and thereby recognizing its utility and importance. In the celebrated criminal code which was framed by him at Ratisbon, in 1532, and which is known by the name of the “*Constitutio Criminalis Carolina*,” or the Caroline code, it is ordained, that the opinion of medical men shall be formally taken in every case where death has been occasioned by violent means—such as child-murder, poisoning, wounds, hanging, drowning, the procuring of abortion, and the like.

“The publication of such a code very naturally awakened the attention of the medical profession, and summoned numerous writers from its ranks.” It was the first regular commencement and origin of legal medicine, and it required only such an enactment to apprehend the utility of which it was susceptible.

The kings of France soon became aware of the value of similar institutions. In 1556, Henry the 2d promulgated a law, by virtue of which, death was inflicted on the female who should conceal her pregnancy, and destroy her offspring. In 1606, Henry the 4th presented letters patent to

* Foderè. Introduction, p. xxiv

his first physician, by which he conferred on him the privilege of nominating two surgeons in every city and important town, whose duty it should exclusively be to examine all wounded or murdered persons, and to make reports thereon; and in 1667, Louis the XIV. formally declared, that no report should be valid unless it had received the sanction of at least one of these surgeons.* At a subsequent period (1692) physicians were by law associated with surgeons in these examinations.

The writers who have investigated the science of medical jurisprudence, are numerous, and many of them have displayed great talent and acuteness. Some have noticed it as a system, while others have examined detached parts. I shall content myself with mentioning the more distinguished, as a catalogue of all these authors, with the titles of their works, would uselessly fill several pages.

Fortunatus Fidelis is probably the earliest writer on the science. He was an Italian, and his work, "*De Relationibus Medicorum*," was published in 1602, at Palermo. Paulus Zacchias soon followed him, in his great work, entitled, "*Questiones Medico-Legales*," which appeared at Rome between 1621 and 1635.† This distinguished man rose to great eminence in his profession, and was physician to Pope Innocent the Tenth. He died in 1659, in the 75th year of his age. His treatise on legal medicine, although partaking of the superstition of the age in which he lived, is still a most valuable record of facts, and a permanent monument of the talents of the author. The following is a general outline of the contents of the first volume. First Book. Age. Legitimacy. Pregnancy. Superfoetation and Moles. Death during delivery. Resemblance of children to their parents. Second Book. Dementia. Poisoning. Third Book. Impotence. Feigned diseases. The plague and contagion. Fourth book. Miracles. Rape. Fifth book. Fasting. Wounds. Mutilation. Salubrity of the air, &c. The second volume is principally filled with a discussion of casuistical questions.

* Foderè. Introduction, p. xxxii.

† Life of Zacchias, prefixed to his *Questiones M. L.*

In Germany, Bohn was among the earliest writers, but his treatise is confined to a consideration of wounds. The *Pandects* of Valentini, which appeared in 1702, and which were shortly followed by his *Novellæ*, form a very complete and extensive retrospect of the opinions and decisions of preceding writers on legal medicine. They consist indeed of medico-legal cases, and the consultations of distinguished physicians, and of medical and legal faculties on them. Alberti, Zittman, Teichmeyer, Fazelius, Goelicke, Hebenstreit, Plenck, Daniel, Sikora, Ludwig, and Metzger, are also German authors of eminence in this branch of learning. But one of the most valuable and comprehensive collections that has ever appeared, is that edited by Schlegel. It consists of upwards of forty dissertations on various parts of medical jurisprudence, written by Germans at different periods during the eighteenth century, and is alike honourable to the national character, and the individuals whose investigations appear in it.

Foderè, in his sketch of the history of the science in France, considers Ambrose Parè as the earliest writer on it in that country. His chapter on Reports, and his observations on feigned diseases, indicate the talents for which he is still famous at the present day, and in such estimation were his works held in his native country, that for more than a century, they formed the sole guide of the French surgeon. To him, succeeded Gendri in 1650; Blegni in 1684, and Deveaux in 1693 and 1701. Their works were particularly intended for the benefit of surgeons, from whom, as I have already stated, the examiners in medico-legal cases were selected.

Louis is, however, considered, and with great justice, as the individual who first promulgated a just idea of the science to his countrymen. He investigated several important points with great ability—such as the certainty of the signs of death, protracted gestation, drowning, and the proofs that distinguish hanging through suicide, from hanging as an act of murder. His consultations also in various cases, and which are preserved in the *Causes Célèbres*, abound in various and instructive learning. Some of his opinions

gave rise to animated discussions, and thus excited public attention to these subjects generally. Winslow, Lorry, Lafosse, and Chaussier, also deserve notice among the French writers, while towards the conclusion of the eighteenth century, Professor Mahon, with several others, published in the “*Encyclopedie Methodique*,” copious dissertations on Medical Jurisprudence.*

In 1796, Foderè published the first edition of his work in three octavo volumes, under the title of “*Les lois éclairées par les sciences physiques, ou Traité de médecine légale and d’hygiène publique*.” This learned physician is a resident of Strasburg, and the author of several other treatises of deserved reputation. In 1807, the system of Mahon, late Professor of Legal Medicine, and the history of Medicine in the school of Medicine at Paris, appeared, with notes, by M. Fautrel, and about the same time, Belloc, a surgeon at Agen, published his sensible and useful treatise in one volume. Marc, in 1808, presented a translation from the German, of the Manual of Rose on Medico-Legal Dissection, and enriched it with valuable notes, besides adding two most instructive dissertations—one on the *docimasia pulmonum*, and the other on *death by drowning*. In 1812, Ballard published a translation, also from the German, of Metzger’s Principles of Legal Medicine. This work is peculiarly valuable for the great learning displayed in its notes, and the opportunity thus afforded, of becoming acquainted with the sentiments of authors whose writings are either inaccessible, or in some degree antiquated.

After bestowing great labour during several years, a second edition of his treatise was published by Foderè in 1813. It is now extended to six volumes—four of these on legal medicine, and two on medical police. Without proceeding to minute criticism, I may remark, that it is in many respects, the most valuable systematic work on the science in the French language. I have made frequent use of it in the following pages.

After a few years, there appeared in Paris, one of the most original publications, that the present age has yet afforded.

* Foderè. Introduction, p. xxxvii, &c.

I refer to the system of Toxicology by Orfila, a Spaniard by birth, but I believe naturalized, or at least, permanently resident in France. This is copious, beyond all former treatises, in original experiments, and it has done much to increase our knowledge of the action and the tests of individual poisons. In 1821, Professor Capuron, published on legal medicine, so far as it relates to midwifery.

The first work, professing to treat of Medical Jurisprudence, that appeared in England, was the production of Dr. Farr. This was in 1788, and in his preface he mentions that it is derived from Fazellius' Elements of Forensic Medicine. It is brief and imperfect, extending only to one hundred and forty duodecimo pages. It arrived at a second edition in 1814. The "*Medical Ethics*," of Percival, contain some useful facts, and Dr. William Hunter, in his essay "*on the uncertainty of the sign of murder in the case of bastard children*," examined a most important and leading subject in medical jurisprudence. In 1815, Dr. Bartley of Bristol, published a few essays on some points connected with midwifery.

Dr. Male, of Birmingham, in 1816, presented the first English original work of any magnitude or value, on medical jurisprudence. It has evidently aided in drawing the public attention in Great Britain to this science. In 1821, Dr. John Gordon Smith published his excellent treatise, entitled "*The principles of Forensic Medicine, systematically arranged and applied to British practice*." And I may be permitted to bear my humble testimony, to the talents and good sense displayed in it. In its application to the English laws, and in its illustrations by individual cases, it is strictly an original work. The last and most copious systematic work, in the English language, has been already mentioned. Its authors are Dr. Paris and J. S. M. Fonblanque, Esq. and it is comprised in three octavo volumes. As it is dedicated by permission, to the Earl of Eldon and to Sir Henry Hallford bart. the president of the Royal College of Physicians of London, it may be presumed that these dignified characters are aware of the importance of the science, and that the sneers so freely and flippantly uttered, both in

and out of parliament, against the Fox ministry, for founding a chair of medical jurisprudence in the university of Edinburgh, will no longer be heard.

To the professorship just alluded to, Dr. Andrew Duncan junior, was appointed. *He was the first professor of medical jurisprudence in any British university.* His venerable father had for some years previous urged its importance on the public, and even delivered, I believe, a course of private lectures, but it was not until 1803, that Dr. Duncan junior received his appointment.

If the publications contained in the Edinburgh Medical and Surgical Journal, of which he is the editor, are to be deemed any criterion on this subject, I should not hesitate to declare my decided conviction, that Dr. Duncan is at present, the ablest and most learned medical jurist in Great Britain. The numerous and valuable cases, essays and reviews published from time to time in the Journal, have almost supplied the want of systematic works, and if the literature of that country has been deficient in the latter, she has at least furnished her full proportion of the former. —Lectures are now delivered on the science in London, Edinburgh, and Glasgow.

This brief outline may suffice to give some idea of the ardour with which medical jurisprudence is investigated in Europe. It forms the study of systematic writers—either as a whole, or in parts, and is the leading subject in many periodical publications.*

In turning to my native country, I must premise, that as our literature has been in a great degree derived from Great Britain, so the objects of study will frequently be those, that are most popular there. And as Medical Jurisprudence has only within a few years, met with its deserved attention in that country, it may in some degree account for the little interest which it has here excited. We have, however, a few publications to notice. In 1810, the venerable and distinguished Dr. Rush, delivered an Introductory Lecture in the university of Pennsylvania, (and which was published

* A copious list of authors on the science, will be found in the notes to Metzger, p. 285 to 306—in Brendel, p. 61, and in the preface to Hebenstreit.

in 1811) in which he dwelt in an eloquent and impressive manner on the importance of the study. After stating the various subjects comprehended under it, he dilated particularly on insanity, and showed its application in medico-legal cases. In the conclusion, he thus forcibly establishes the utility of the science. "To animate you to apply to the study of all the subjects enumerated in the introduction to our lecture, I beg you to recollect the extent of the services you will thereby be enabled to render to individuals and the public : fraud and violence may be detected and punished ; unmerited infamy and death may be prevented ; the widow and the orphan may be saved from ruin ; virgin purity and innocence may be vindicated ; conjugal harmony and happiness may be restored ; unjust and oppressive demands upon the services of your fellow citizens may be obviated ; and the sources of public misery in epidemic diseases may be removed, by your testimony in courts of justice."*

In 1819, Dr. Thomas Cooper, formerly a judge in Pennsylvania, and now president of the College of South Carolina, republished in one volume, several English tracts on medical jurisprudence, viz : Farr, Dease, Male, together with Haslam on Insanity. To these he added copious notes, and a digest of the law relating to Insanity and Nuisance. Having had occasion to differ with Dr. Cooper on some medico-legal points, my opinion will not be misconstrued, I trust, when I state my conviction, that he has done much by this publication, to promote the study of the science in the United States. From his standing in the legal profession, he has attracted the attention of lawyers to it, in a degree which a physician could scarcely hope for. He has also, strongly illustrated the importance of the subject to both professions—to the promotion of the ends of justice, and to the welfare of our free communities.

These, with the exception of some inaugural dissertations, and cases and essays in medical journals, constitute, so far as my information extends, the American publications on the science.

Our lecturers have been rather more numerous. The

* Rush's Introductory Lectures, p. 392.

first that ever delivered a course on it before an American audience, was the late James S. Stringham, M. D. of New-York. With feelings which will be readily appreciated, when I state that my first impulse towards the study was derived from attendance on Dr. Stringham's lectures, I was desirous of commemorating his name in these introductory remarks, and I have been enabled to do so, through the kindness of his successor.

Dr. Stringham was born in the city of New-York, of respectable parents, whose circumstances in life, happily enabled them to furnish to their son, the opportunities of a liberal education. He prosecuted his classical studies in Columbia College, and was graduated there in 1793. After this, he immediately entered upon a course of medical education, under the care of the late Dr. S. Bard and Dr. Hosack, and diligently attended, for several years, to all the branches of medicine then taught in New-York. He subsequently repaired to Edinburgh, became a student in the university, and in 1799 received from it, the degree of M. D.

Shortly after his return to his native country, he was elected Professor of Chemistry in Columbia College, and for several years, delivered lectures on that science. Not satisfied, however, with these exertions, and anxious for a more extended sphere of usefulness, he voluntarily prepared a course of lectures on Legal Medicine. To the students who attended him, this proved a source of great gratification and instruction, and its utility was readily acknowledged.

Having long laboured under an alarming organic disease of the heart, and finding his constitution materially impaired, Dr. Stringham resigned his office as Professor of Chemistry, in Columbia College; but upon the union of the medical faculty of that college, with the college of Physicians and Surgeons, he was induced to accept the Professorship of Medical Jurisprudence. In this station he continued until his death, which happened at the island of St. Croix, (whither he had repaired for the benefit of his health,) on the 29th of June, 1817.

Besides his inaugural dissertation, "*de absorbentium sys-*

temate," Dr. Stringham was the author of several essays and papers in the medical journals of the day. He published in the *New-York Medical Repository*, an account of the efficacy of *Digitalis purpurea* in allaying excessive action of the sanguiferous system—a description of a remarkable species of intestinal vermes—an account of the violent effects of corrosive sublimate—and a case of hydrocephalus : in the *Philadelphia Medical Museum*, a paper on the effects of mercury, in a case of syphilis, and in the *Edinburgh Medical and Surgical Journal*, a paper on the yellow fever of America.

A syllabus of the lectures of Professor Stringham, is contained in the *American Medical and Philosophical Register*.* The subjects noticed by him were as follows : Age—propriety of the Cæsarean operation—virginity and rape—concealed pregnancy—pretended pregnancy—quickenings—abortion—superfœtation—monstrosity—hermaphrodites—impotence and sterility—feigned diseases—concealed diseases—poisons—medico-legal dissection—wounds—infanticide—death from hanging and drowning—medical etiquette—effects of particular manufactories on health—salubrity of water.

Dr. John W. Francis was appointed Professor of Medical Jurisprudence on the decease of Dr. Stringham ; but by a subsequent arrangement, the professorship was abolished. Those parts, however, which relate to midwifery, are still taught from the obstetrical chair.

In 1815, I was requested to deliver a course of lectures on the science at the Western Medical College, and from the winter of that year, have annually, with one exception, attended to this duty. Not long after, Dr. Walter Channing, was appointed Professor of midwifery and medical jurisprudence, in Harvard University. Other Medical schools are also devoting proper attention to it, and I may add, that a course of private lectures was delivered some years since, in Philadelphia, by Dr. Charles Caldwell, now of Transylvania University.

* Volume 4, p. 614.

It only remains, to offer some observations on the arrangement that has been adopted in the present work.

Some writers endeavour to divide the subjects, according to the courts before which they may arise—and thus devote separate chapters to civil and criminal cases. It will however, be readily perceived, that this must render the study confused. Pregnancy, for example, may be a subject of inquiry, on a plea for a delay of execution—or on the application of an heir for his property. In both instances its signs require examination. So also with insanity, and several other topics. It will hence only lead to repetition, to adopt this division. Foderè has escaped from the difficulty, by including these subjects under the title of “*Medicine Legale Mixte*,” applicable both to civil and criminal cases, but this is evidently an evasion. Dr. Gordon Smith, arranges his subjects into three parts : 1. Questions that regard the extinction of human life. 2. Questions arising from injuries done to the person, not leading to the extinction of life, and 3. Disqualifications for the discharge of social or civil functions.

I must confess that I have found a confusion to attend all these attempts at arrangement, which is probably insurmountable. The subjects comprehended under the science, are not of a nature, to admit of a division similar to that proposed by either of the above writers. I have preferred noticing each head of discussion separately and independently. Before a legal tribunal they must be thus investigated, and the nearer we approach in our studies to this, the easier will be their application to practice.

The general arrangement is thus, I apprehend, not a matter of great moment, but on taking up a distinct topic, the first question which I have proposed to myself, has been the following : *How can the examination of this point come before a judicial tribunal ?* Having ascertained and stated this, I proceed to notice the physiological, pathological, or chemical facts, that are necessary to be known in the supposed case—advert to the difficulties to be encountered in the investigation—and offer, if necessary, some observations, on the conformity of the law to the present state of

medical knowledge. A collection of detached essays of this description (for they evidently are detached in their subjects and in their application,) must prove in a great degree useful, both to the lawyer and the physician, since it enables them, in their respective capacities, to review the information that is immediately applicable to a particular instance before them. If, in the opinion of enlightened men of these professions, I have effected this in some tolerable degree, my highest ambition will be gratified.*

* Some subjects of minor importance, have been omitted in the present work, from a fear of enlarging it to an inconvenient size. They are, however, of such a nature, as to admit of their examination with perfect propriety, in a treatise on Medical Police.

ERRATA.

But few errata have been noticed, and most of these are merely verbal, which the reader is requested to correct with the pen.

VOL. I.

Page 41, 2d note. For 1818, read 1819.
 56, line 17. Add †.
 Ibid. line 29. Alter † to ‡.
 70, note. For *matrimonia*, read *matrimonio*.
 102, line 19. For *Button*, read *Britton*.
 116, 118, and 132. *Mariceau* should read *Mauriceau*.
 131, commencement of the section. Change 5 to 4.
 Ibid. line 11. For *Professor of*, read *Professor ut*.
 137 and 139. For *albucantes*, read *albicantes*.
 140, note, line 3. For *endulous*, read *pendulous*.
 163, notes. Alter † to *, and for *which*, read *that*.
 245, note †. Insert *vol. 1.*
 303, line 3. For *Lork*, read *Lord*.

VOL. II.

Page 93, first line of contents. For *duration*, read *division*.
 95, note. For *illiac*, read *iliac*.
 112, line 10. For *are*, read *is*.
 136, 2d column. For *clematitis*, read *clematis*.
 170, line 27, in a part of the impression. For *amount*, read *amounted*.
 203, line 4 from the bottom. For *ammonical*, read *ammoniacal*.
 247, line 7 from the bottom. Change *a* to *n* in *determinatioas*.
 369, 441—*ather* should be spelt *ether*.
 478, line 29. For *no*, read *a*.

¶ In order to preserve the uniformity in size, the Index has been placed at the end of the first volume.





MEDICAL JURISPRUDENCE.

CHAPTER I.

FEIGNED DISEASES.

Objects for which diseases are feigned. Diseases most readily feigned. General rules for their detection. Diseases that have been feigned. Alteration of the pulse—altered state of the urine—hæmaturia—incontinence of urine—suppression of urine—maiming and deformity—dropsy and tumours of various kinds—excretion of calculi—ulcers—hæmoptysis—hæmatemesis—jaundice and cachexia—fever—pain in various parts—syncope and hysteria—diseases of the heart—apoplexy—paralysis—epilepsy—convulsions—catalepsy—nostalgia—near-sightedness—ophthalmia—blindness—deafness, with or without dumbness. Of impostors. Feigned abstinence.

DISEASES are generally feigned from one of three causes—fear, shame, or the hope of gain. Thus the individual ordered on service, will pretend being afflicted with various maladies to escape the performance of military duty—the mendicant, to avoid labour, and to impose on public or private beneficence—and the criminal, to prevent the infliction of punishment. The spirit of revenge, and the hope of receiving exorbitant damages, have also induced some to magnify slight ailments into serious and alarming illness.

The extent and finish to which the art of feigning diseases is carried, are various, and differ in different countries. Of his own nation, Foderè observes, “that it is at present brought to such perfection, as to render it as difficult to detect a feigned disease, as to cure a real one.”*

Against such impositions, the police of every well regulated country should direct its energies. A se-

* Foderè, vol. 2, p. 452. This remark, it will be observed, was made at a time when the conscription was in full force in France.

vere injury may not only be inflicted on individuals through them, but the public morals may be deteriorated. In almost every age, impostors have sprung up, who affect various maladies, and operate on the superstition or the curiosity of the vulgar. And even the higher ranks of society, from motives as unworthy, have occasionally, like the courtiers of Dionysius and Louis XIV. given a sanction to such practices.

It will readily be observed, that a knowledge of this subject may frequently be necessary both in civil and criminal cases, and also in the due administration of MEDICAL POLICE. To prevent the necessity of repetition, I shall consider it at length under the present division of our subject.

All maladies are not equally capable of being feigned. It is difficult to pretend those, whose diagnostic symptoms are certain and established, and whose natural course it is to effect a great change in the system, and to alter the various secretions and excretions in a perceptible manner. But such, on the contrary, as are variable and uncertain in their symptoms, and characterised by little or no change in the external appearance, or where the correctness of an opinion depends much on the statement which the patient may give, are most liable to be feigned. Of the first class may be named inflammations, continued fevers, purulent expectoration, &c. and of the last, insanity, epilepsy, and pain. Not unfrequently, however, various substances are used to aid in misleading the examiner, and thus the entire skill of a medical man is often called into exercise, to ascertain the real state of the patient.

Zacchias, in his elaborate and learned work, has given five general rules for the detection of feigned diseases, which are so discriminating as to have received the sanction of most succeeding writers. A detail of these will illustrate their universality of application, and the ingenuity of their author.

1. The first is, that the physician must, in all sus-

pected cases, enquire of the relatives and friends of the suspected individual, what are his physical and moral habits. We must ascertain the state of his affairs, and enquire what may possibly be the motive for feigning disease—particularly whether he is not in immediate danger of some punishment, from which this sickness may excuse him. It was on this principle, he observes, that Galen detected the imposture of his servant who, when ordered to attend his master for a long journey, complained of an inflammation of the knee. He enquired into the habits and character of the slave, and ascertained that he was much attached to a female, whom this journey would compel him to leave. This, combined with the little alteration, that so painful an affection as the one named, induced, led him to examine the part, and at last to ascertain that the swelling was occasioned by the application of the *thapsia* or *bastard turbith*, and which being prevented, the tumour disappeared.

2. Compare the disease under examination, with the causes capable of producing it; such as the age, temperament, and mode of life of the patient. Thus artifice might be suspected, if a person in high health, and correct in his diet, should suddenly fall into dropsy or cachexia; and again, if insanity should suddenly supervene, without any of its premonitory symptoms. It is contrary to experience to find such diseases occur without some previous indications.

3. The third rule is derived from the aversion of persons feigning disease to take proper remedies. This indeed will occur in real sickness; but it rarely happens when severe pain is present. Any thing that promises relief, is generally acceptable in such cases. Those on the contrary who feign, delay the use of means. Galen, (says Mahon,*) thus ascertained deceit in another case. An individual complained of a violent cholic, on being summoned to attend an assembly of the people. Suspecting artifice, he prescribed only a few fomentations, although

* Mahon, vol. 1, p. 332.

this same person had not long before been cured of the same complaint by the use of *philonium*. Of this however, he never spake, nor indeed seemed in the least anxious for medical aid.

4. Particular attention should be paid to the symptoms present, and whether they necessarily belong to the disease. An expert physician may thus cause a patient to fall into contradiction, and lead him to a statement which is incompatible with the nature of the complaint. To effect this, it is necessary to visit him frequently and unexpectedly.

5. The last direction is to follow the course of the complaint, and attend to the circumstances which successively occur. Thus the inflammation of the knee above noticed should have produced fever, and increased in violence, according to the common course, when no remedies are applied.*

Before proceeding to notice separately the various diseases that may be feigned, it will be proper to advert to a species of simulation, mentioned by Zacchias, under the name of *simulatio latens*. By this, he understands a case in which disease is actually present, but where the symptoms are falsely aggravated, and greater sickness is pretended than really exists. This may be more difficult of detection in some respects, and it requires, like the cases above noticed, the skill of the physician, and that, too, of one experienced in the history of disease, to guide aright. Generally speaking, it will be his duty to steer a middle course between too great incredulity and too great confidence, and where the interests of a third person are not liable to be affected, to lean towards the patient. I can however imagine, that cases have occurred, in which disease has been magnified in order to increase damages, or to revenge insult. Here the conduct of the medical examiner must be cautious, and he should carefully apply the rules already laid down.†

* Zacchias, tom 1. p. 289.

† "Flagrantior equo

Non debet dolor esse viri, nec vulnere major." *Juvenal, Sat. 13*

The following diseases have at various times been feigned : alteration of the pulse ; altered state of the urine ; hæmaturia ; incontinence of urine ; suppression of urine ; maiming and deformity ; dropsy and tumours of various kinds ; excretion of calculi and various foreign matters ; ulcers ; hæmoptysis ; hæmatemesis ; jaundice and cachexia ; fever ; pain in various parts ; syncope and hysteria ; diseases of the heart ; apoplexy ; paralysis ; epilepsy ; convulsions ; catalepsy ; nostalgia ; near-sightedness ; ophthalmia ; blindness and deafness, with or without dumbness.

On examining this list, it will be found that the various diseases are generally referable to two classes—external infirmities, real in one sense, but arising from factitious and culpable causes—and secondly, internal ones, whose origin is uncertain, and which from their nature produce great commiseration on the part of observers.*

The *pulse* is sometimes found extremely weak, and occasionally none is perceived at the wrist. Should deceit be suspected, the physician may examine whether ligatures have not been applied to interrupt the pulsation, and he should also ascertain whether the arteries beat at the corresponding extremity. I am indebted to my late worthy preceptor, Dr. M'Clelland, of Albany, for a case illustrating this point. During the period of his attendance at the Royal Infirmary in Edinburgh, a person applied for and obtained admission on the score of ill health, who had formerly been a patient there. The attending physician examined the pulse at the right wrist, but found none ; he then tried the left, but with similar success. The trick was carried on for several days, at the end of which time, it was discovered that the patient was in sound health, but that whenever the pulse was to be examined, he pressed his finger on the artery under the arm-pit.

The *urine* may be altered in many and various

* Metzger, p. 214.

ways. The best general rule in suspected cases, is to cause the patient to urinate in the presence of the physician, and to examine the vessel carefully both before and during the process. It is well known, that long retention or violent exercise will heighten the colour. Artificial substances have also been used to produce this effect; wine is one: but this may be detected by the smell. Other means are used to give the urine a watery appearance; this symptom, however, should be distrusted, unless other circumstances indicative of disease accompany it. Again, it may be feigned to be bloody. The fruit of the Indian fig (*cactus opuntia*) will colour it as red as blood;* and we have a powerful article in the materia medica, viz. cantharides, which will actually produce this state of the excretion, when taken internally. The experiment, however, is too hazardous to be often repeated, even for a temporary purpose. We must also remember, that blood may be easily procured and mixed with it. Hence the importance of the rule already laid down.†

Incontinence of urine. Two deserters were brought to the hospital at Martigues, on account of this disease. Foderè was the attending physician, and applied epispastics to the perinæum—a remedy which he in previous cases had found useful—but without success. They were discharged; but it was shortly discovered that they had feigned the disease. The consequence was an epidemic incontinence of urine among their companions that remained. This awakened the suspicion of our author; and above all,

* Zacchias, Lib. 3. Tit. 2. p. 290.

† A boy at Bilson, (Staffordshire) A. D. 1617, accused a woman of having bewitched him; and succeeded so well in feigning convulsions, &c. that she was tried and condemned to die. Dr. Morton, the bishop of the diocese, suspected imposture, and caused him to be confined and watched. He grew apparently worse, and the urine which he openly voided was black. The good bishop almost despaired of saving the life of the female, in consequence of this dangerous situation of the boy. A vigilant spy, however, detected him in dipping a small piece of cotton in an ink bottle placed at the side of his bed. This he put inside of the prepuce, in order to give the urine its colour when he excreted in public. *Memoirs of Literature*, vol. 4, p. 357.

surprised that his remedy produced no effect in any case, he ordered that the penis of every patient should be tied, and on the knot a seal placed, which none but the gendarme who guarded them should have power to break, at such times as they wished to urinate. He charged the guard to visit them from time to time, to observe whether the penis was inflated, and also whether the urine was not discharged *guttatim*. He did this from having observed, that in real incontinence of urine, the penis becomes enlarged, so as to render it necessary to remove the ligature in a very short time. The expedient succeeded; it was removed only at the ordinary period, and in twenty-four hours the epidemic vanished.*

Dr Hennen observes that this disease is almost always detected by giving a full dose of opium at night, without the knowledge of the individual, and introducing the catheter during sleep; or by taking him by surprise during the day, and introducing the same instrument, when it will be found that the urine has not drained off *guttatim* as it was secreted, but that the bladder possesses the power of retention.†

Maiming is sometimes feigned, under the hope of being admitted into hospitals, such as all high spirited nations have erected for their wounded and decrepid soldiers and sailors. It may, however, be readily detected by examining the part complained of; as may also *deformity*. In both instances, the part and its articulation should be viewed naked, and compared with the opposite. The following extract from a rare book called the "History of Knavery," will give an idea of the art that is frequently exer-

* Foderè 2. p. 481.

† Hennen's Principles of Military Surgery, page 455. In a very interesting inaugural dissertation on feigned diseases, published by Dr. Blatchford in 1817, it is stated, that *suppression of urine* was a frequent disease among the female convicts at the New-York state prison. The author, who was the resident physician there for some time, relates two cases, in which the frequent use of the catheter obviated all the evil effects that a *voluntary* suppression might have produced, and also indicated when the complaints of pain and distress were groundless. (Pages 71 and 74.) By a reference to old registers, he found that this was a common complaint immediately after the initiation of every "Resident Physician."

cised by beggars. It is a notice published in 1702, and is in the following words :

“ That people may not be imposed upon by beggars, who pretend to be lame, dumb, &c. who really are not so, this is to give notice, that the president and governors for the poor of London, pitying the case of one Richard Alegill, a boy of eleven years of age, who pretended himself lame of both his legs, so that he used to go shoving along his breech, they ordered him to be taken into the workhouse, intending to make him a tailor : upon which he confessed that his brother, a boy of seventeen years of age, about four years ago, by the advice of other beggars, contracted his legs and turned them backwards, so that he never used them from that time to this, but followed the trade of begging ; that he usually got five shillings a day, sometimes ten shillings ; that he had been over all the counties, especially the west of England, where his brother carried him on a horse, and pretended he was born so. He hath also given an account that he knows of other beggars that pretend to be lame and dumb, and of some that tie their arms in their breeches, and wear a wooden stump in their sleeve. The said president and governors have caused his legs to be set straight ; and he has now the use of them, and walks upright.”*

Of *artificial dropsy and other tumours*, it may be observed, that deception can only escape undetected, until the individual be examined by a skilful physician. The following case, from the *Acta Naturæ Curiosorum*, will show how much we ought to distrust that affectation of modesty which will not permit a complete investigation. A young female at Strasburg, from the enlargement of her abdomen, had led the public to doubt the purity of her character. The distention continued so long as to dissipate the suspicion ; and for thirty-nine years she continued to increase in bulk, and excited the commiseration and

* Mirror of Taste, a periodical publication. Philadelphia. vol. 2. p. 441.

charity of all who saw her, in such a manner as to lead a highly comfortable life. Her case excited the attention of the physicians and surgeons; and they waited with some impatience, until her death should develop the nature of this extraordinary disease. No tumour was found; but in her wardrobe was a sack or cushion weighing nineteen pounds, and so made as to fit the shape of the abdomen. This female would never allow a medical man to examine the seat of her pretended disease.†

Sauvages, in his *Nosology*, makes mention of a mendicant who gave to his child all the appearances of *hydrocephalus*, by opening the integuments of the head near the vertex, and then introducing air between them and the muscles. This infamous fraud was discovered by removing the patch which covered the hole, and prevented the air from passing out. A mountebank at Brest produced similar inflations, together with the appearance of the most hideous deformity, in a child, by means of the introduction of air, and the application of ligatures on various parts of the body;‡ and not long since, a female in France, by the same mode, caused an *emphysema* of the abdominal parietes, so as to resemble dropsy.¶ Tumours of this nature are readily produced, since the cellular texture is spread over the whole surface of the body, and air may be introduced through the smallest possible aperture. We must however recollect, that dropsy, *hydrocephalus* and *emphysema*, are marked by stronger and more conclusive symptoms, than the mere existence of tumour. The sac in *hernia* has been ingeniously imitated with the bladder of an ox, and a *prolapsed rectum* and *uterus*, by means of a portion of the intestine of the same animal, in which a sponge filled with a mixture of blood and milk was placed. It was fixed into the vagina and rectum in

† Mahon 1. 362.

‡ Foderè, vol. 2. p. 435. He quotes the Bulletin of Medical Sciences of the Societe D'Emulation for this case.

¶ Foderè, *ibid*.

such a manner, that one of its extremities was left hanging out.*

Chemistry supplies us with the means of ascertaining deceit when the *excretion of calculi* is feigned. It teaches the characters which designate their animal origin. I should not have noticed this, were it not for a late case related in a highly valuable journal. A physician was consulted by the friends of a young lady of high respectability, concerning a very painful disease to which she was subjected. She was said to be frequently ill, and during the attack to void, with agonizing pain, concretions in her urine. A certain number of these being discharged, she felt relief. A parcel of these urinary concretions was handed to a physician, who instituted experiments on them, and found, what indeed was obvious on inspection, that they were nothing but common sand and pebble stones. Of these, it was asserted, she had excreted not less than several pint measures in the course of two or three years. No motives were assigned for this lady's extraordinary conduct.† Dr. Thomson mentions a similar case that occurred in 1811, with a boy about ten years of age.‡

Ulcers are frequently induced by the use of epispastics, or various acrid plants, and real ones are often prevented from healing by similar means. Besides noticing the nature of the discharge, whether it be pus or sanies, and also attending to the habit of the patient, it is sufficient to mention, that ulcers caused intentionally are easily distinguished from real ones, since their borders are less callous, their surfaces more superficial, and generally less painful; and by the

* Mahon, 1. 357.

† Edinburgh Med. & Surg. Journal, vol. 7, p. 488.

‡ Annals of Philosophy, vol. 4, p. 76. The grossest impostor of this kind, however, is that related by Dr. Livingston of Aberdeen. A female gained admission into the Infirmary, on account of a suppression of urine, and passage of stones from the vagina. These, on examination, were found to resemble calcined bricks. On using the catheter, nothing particular could be discovered in the bladder, but stones were found sticking in the vagina; and after a careful search, a stone exactly similar was found in her pocket, and three or four in the bed. She then confessed the imposition, which appears to have deceived many. Medical Commentaries, 4. 452.

use of lukewarm water, and covering them with lint, they are readily healed. And the reason for this is, that they do not originate from, or accompany a disease of the system. Frauds of this description are frequently attempted in hospitals, or to avoid the performance of labour of every kind. In 1810, a fellow enlisted in the marines at Portsmouth, (Eng.) and received his full bounty. In a few days, it was discovered that he had a very bad leg. On investigation, it was proved by his wife and others, that to avoid going on duty, he had made an incision in the flesh just upon the shin-bone, and put a copper half-penny on the wound, which almost immediately caused a violent inflammation. He ultimately, however, paid most dearly for his speculation; as a mortification followed, and it was found necessary to amputate the limb.*

Nor is it confined to common ulcers alone. Even that dreadful disease, *cancer*, has been feigned. "I have seen," says Pierre Pigray, "a woman present herself to the late king of France, to be touched by him," (as the former kings of France were said to perform miracles in this way,) "who appeared to have a very large and ill-looking cancer of the breast. It seemed so extremely natural, that it might have deceived the spectators; but when I observed, that she was young, of a good habit, well formed, and without any symptom of cachexia, I was led to suspect deceit. On touching the ulcer, I ascertained, though with some difficulty, that a part of a spleen had been glued on its smooth side to the nipple, which left on the outside a serous and reddish kind of matter, similar to that of cancer. When this was removed, the nipple remained white, healthy, and well formed."†

A false eruption of *petechiæ* or *pustules*, may be detected by examining the patient perfectly naked.

It is easy to feign *hæmoptisis* by pretending to cough, and then spitting out the blood, which comes from

* Edinburgh Annual Register for 1810, part 2, p. 185.

† Quoted from his Surgery. Mahon, 1. 358. Foderè, 2. 486.

pricking the gums, or it may be assumed by constantly holding some bol. armen. under the tongue, which tinges the saliva of a blood red colour. Periodical attacks of this disease are most commonly simulated. There are other persons who pretend to be afflicted with *hæmatemesis*, or vomiting of blood; and for this purpose, drink the blood of some animal, or use some coloured liquid, and then throw it up in the presence of spectators. Sauvages, in his *Nosology*, mentions of a young lady, who, being unwilling to remain in a convent, had some blood of an ox brought to her, which she drank, and then vomited in the presence of her physician. As no deceit was suspected, he stated that she was really ill, and she thus obtained her liberty.* A similar case is related of a female, who accused a person of having maltreated her. She went to bed, and brought up large quantities of blood without any effort. She could however sing, cry, and put herself in a passion, without the disease recurring, and it ceased when she found that the deceit would prove useless.† It will readily occur to the reader, that *menstruation* may be pretended, by staining the clothes and body with borrowed blood. All the discharges, however, which I have named, are marked with symptoms which cannot mislead, and need not to be enumerated.

Jaundice, when real, is known by the discolourature of the adnata, and of the urine. Clay coloured stools are also another indication; yet it is stated, that individuals in France, have imitated these to perfection, by taking daily a small quantity of muriatic acid. There are several substances, which, on being taken internally, produce a yellowness of the skin, but in such cases it is proper to recollect that real jaundice is frequently accompanied with vomiting, pain and sleeplessness. The most unequivocal symptom, and therefore the most to be relied on, is

* Mahon, 1. 361.

† Metzger, p. 462.

the colour of the adnata. If yellow, jaundice is present, originating either from disease, or some artificial cause. *Cachexia* and *great weakness* are also often feigned, by using substances to make the face appear pale and livid. In these instances, inquire whether there is a loss of appetite, or of strength, or swelling of the legs. Examine also the pulse and the skin, whether the first be strong, and the latter hot.*

Fever may be induced by the use of various stimulants, such as wine, brandy, cantharides, &c. It is assumed, when a disease is suddenly necessary, to avoid military requisitions, or the performance of work in prisons. Foderè states that he has observed a feverish state of the system thus induced by violent exercise, and then calling for the physician, has noticed the patient imitating the cold fit to admiration. Others again having taken emetics to produce similar effects. Of all cases of feigned fever, it may be remarked, that they are ephemeral. A day or two's examination develops the deceit, as a frequent repetition of the use of stimulants is too hazardous, and real disease might then be the consequence.†

It might appear from the enumeration already made,

* A very curious work was published at New-Haven in 1817, under the title of "*The Mysterious Stranger, or Memoirs of Henry More Smith.*" It purports to be written by the sheriff of Kings county, New-Brunswick, and I have repeatedly understood, that there is no doubt of the authenticity of all the material facts. The hero of the story was a most accomplished villain. While in the prison at Kingston, (N. B.) he began to spit blood, had a violent cough and fever, and gradually wasted away, so that those who visited him supposed that his death was rapidly approaching. This continued for a fortnight, and his weakness was so great that he had to be lifted up, in order to take medicine or nutriment. A turnkey unfortunately however, left the door of the prison open for a few moments, in order to warn a brick for his cold extremities. On his return, *Smith had disappeared.* After many adventures and hair breadth escapes, he is now a prisoner in the Newgate of Connecticut. There also he has feigned cachexia, hæmoptysis and epilepsy, but with no success. He confessed that he pretended to raise blood by pounding a brick into powder, putting it in a small rag, and chewing it in his mouth. He contrived to vary his pulse by striking his elbows, and said he had *taken the flesh off his body in ten days, by sucking a copper cent in his mouth all night, and swallowing the saliva.*

† Dr. Hennen's remarks on this point, are deserving of particular attention: "Neither the quickness of the pulse, nor the heat of the skin, are infallibly indicative of the presence of fever, and therefore it is, that the state of the tongue, stomach and stools, and of the senses, should be most particularly attended to." *Principles of Military Surgery*, p. 198.

that it would require but a moderate share of sagacity to detect feigned diseases. There are, however, some which are very intricate, and they belong to the class previously mentioned, whose origin is uncertain, and where the opinion to be formed depends greatly on the statement given by the patient himself.

Pain is the disease most frequently assumed ; and in proportion to the facility of assuming it, must be the vigilance of those whose duty it is to detect the fraud. The enquiry should be made in all suspicious cases, where the disease is seated—what is probably its cause—the nature of the pain—its duration—its symptoms and effects, and what remedies have been already used ?

The seat of pain is either the external or the internal parts. Patients will not so readily feign the former, since the deceit is liable to be soon detected ; and in addition to this, it is generally of that kind which is deemed a slight disease. Pain in the external parts is, moreover, often accompanied with heat, redness, change of colour, or tumour. Gout is sometimes pretended, and above all rheumatism, for which the soldier is always ready to assign sleeping on the ground as a cause. Both these diseases have diagnostic symptoms—redness, &c. in the one ; and tumefaction, or diminution of size, with retraction or loss of motion, in the other. But it is equally true, that there are species of severe pain in which the physician can find no external appearances to found an opinion ; and of this description are scorbutic and venereal pains. There are, however, other means of detecting these. Internal pain is accompanied with symptoms which it is impossible to assume, and their absence will of course lead to suspicion. Thus pain in the head is attended with loss of sleep, vertigo, fever, and sometimes with delirium—in the thorax, with cough and difficult respiration—so also in the bowels and kidneys. Each has its peculiar symptoms ; which, if the disease be real, are not periodical or occasional in their attack, but incessant,

and their severity is generally greater during the night. Inquiry ought also to be made concerning the cause of sickness, and a comparison drawn between it and the violence of the malady. With respect to the species of pain, we should examine whether it be sharp, heavy or darting, and then compare this with the symptoms. It is, moreover, important to know the duration of the pain complained of; since it is very rare that it is prolonged for any length of time without exhibiting manifest and unequivocal signs. If violent pain is stated to be present, and the patient notwithstanding enjoys a good appetite, and sleeps well, we have reason to doubt its severity. Much may also be learnt from the remedies employed. Powerful ones are indicated, if the disease be real, and the patient will not object to their application. It may also be proper to mix a little opium in the food of the patient; and if sleep be thus readily induced, we may form an opinion as to the magnitude of the disease.

Notwithstanding the above directions, instances have occurred of physicians mistaking real pain for feigned, and feigned for real. "I refused," says Foderè, "for fifteen years, a certificate of exemption to a young soldier, who complained of violent pain, sometimes in one limb, and sometimes in another, and occasionally in the thorax or pericranium, without any external sign to indicate its existence. He died at last in the hospital, from the effects of the malady, which he always insisted was a species of rheumatism. I examined the body after death, viewed all the former seats of disease, but discovered nothing either in the membranes, muscles, nerves, or viscera; and was hence led to believe that life was destroyed solely from the repetition and duration of these pains."* This case induced a determination in our author to be more lenient in future. Its success will be seen in the following instances. An

* Foderè, 2. 471

artillerist from the garrison of Fort de Bouc, was brought to the hospital at Martigues, with a violent pain in the left leg, and which was attributed to sleeping on the damp ground. During the space of eight months, a variety of antimonial preparations, together with mercurials and tonics when indicated, were administered, along with local remedies, but without any relief. The leg, from the repeated use of epispastics and cauteries, became thin, and rather shorter than the other; while from the low diet ordered, there was a general paleness and lankness of the system. Under these circumstances, Foderè could not refuse him a certificate as a real invalid. With the aid of a crutch, he dragged himself to Marseilles, where he obtained the promise of a discharge. He was ordered to return to the fort to await its arrival; but on his way thither, being too overjoyed, he was met by his commander, walking without his crutch. On being put in prison, he avowed the fraud.

Another case was that of a deserter, a Piedmontese, condemned to hard labour. He was conducted from prison to the workshops, marching on two crutches, as being paralytic in the lower part of the body; and from thence to the hospital, where he remained thirteen months. He supported during that time, with the greatest fortitude, the application of epispastics, moxa, and cupping; asked earnestly for the trial of new remedies, and excited the commiseration of all who saw him. At the end of the above period he was dismissed. In a short time he abandoned the use of his crutches, and never employed them, except when he expected to be observed.*

Feigned syncope and hysteria cannot resist the application of strong sternutatories to the nostrils. In the former, it is difficult to dissemble a small, feeble, and languishing pulse, an almost suppressed respiration, cold sweats, coldness of the extremities, and

* Foderè, vol. 2. p. 473, 474.

great paleness of the countenance. If ligatures are supposed to be used to prevent the pulse being felt, the body should be examined naked. So also if lotions have been applied to the face to give it a pale colour, let the face be washed. The causes assigned for producing the disease, and the rapidity with which the symptoms have presented themselves, should also be noticed.

Cases are, however, mentioned where individuals possessed the power of suspending, or at least moderating the action of the heart. And on the contrary, some have been able to increase it at will.* All such require patient and repeated examinations.

Apoplexy will only be feigned by those who hope for immediate escape from some impending punishment. From the nature of the disease, it cannot be long dissembled. If it be necessary to ascertain the truth at the first moment of the attack, powerful remedies, such indeed as are indicated in the real disease, should be employed. Zacchias observes that feigned apoplectics cannot resist the action of sternutatories. *Paralysis*, in many respects requires the same treatment as rheumatism. A powerful shock from an electric jar may tend to develope the deceit.†

It is remarkable that a disease so much dreaded by the real sufferer as *epilepsy*, should be so often feigned; yet this is really the case, and the cause probably is, the affright and pity that may be inspired, or else the short exhibition of disease that is necessary, leaving the patient to act as he pleases during the interval. In all suspicious cases, it is proper to notice whether the sick person falls to the ground suddenly, whether the face is livid, the pupil fixed, the lips pale, the mouth distorted and frothy, and the

* See Male, p. 267. Hennen, p. 466.

† Dr. Blatchford relates a case of feigned paralysis occurring in the New-York State Prison, which resisted all medicines, until he gave the patient a powerful electric shock. Upon receiving it, he jumped up, ran into the hall, and asked for his dismissal from the hospital.

pulse altered. The physician ought also to observe whether sleep follows the paroxysm, and also if the patient complains of dullness of sensation, vertigo and great weakness. All or most of these symptoms accompany real epilepsy. But the surest sign of this disease is a loss of feeling, so that sternutatories, and even the actual cautery produce no effect during the paroxysm. This immediately gives us a mode of detecting artifice. An artillerist at Martigues had acquired, from frequent practice, such skill in feigning this disease, as almost to deceive Foderè, and this indeed would have been the case, had he been able also to resist the application of fire. This always recovered him, though he lay apparently without sense, his eyes starting from their orbits, and his mouth foaming. He afterwards confessed, that he never counterfeited a paroxysm, without feeling for several days a violent pain in the head.*

De Haen was consulted by a mother, whose daughter, after being cured of deafness became epileptic. He directed her to be brought to the hospital at Vienna, where he attended. The fit which at first did not occur more than once or twice a day, now recurred every hour. It resembled a real one, as the hands were violently clenched, and the eyes disordered; but he suspected deception, for the following reasons: she did not open her eyes during the paroxysm with a wink, but in the natural manner; her pulse was natural; when the curtains were drawn, the pupil of the eye was dilated, and when opened it was contracted, and this last occurred very violently when a candle was presented. Convinced that the disorder was pretended, he ordered her to be taken out of bed, and directed the attendants to keep her in an erect posture. If she fell, they were to chastise her severely. A cure was thus effected, and she confessed that both the deafness and epilepsy were feigned, to avoid going to service. In another case, a female aged

* Foderè 2, p. 464.

twenty, was confined in prison for a murder, who had on her the marks of three successive burnings, which she resisted without confessing the deceit. De Haen, and many others, saw her imitate a paroxysm of epilepsy with such horrible accuracy, that the feigned was supposed to be real, until in the midst of it, being ordered to rise, she got up and walked away. In such an instance, our author recommends the remedy used at Paris. A beggar there, often fell into fits in the street. A bed of straw, through compassion, was prepared, on which he might be laid to prevent injury to himself. When next attacked, he was laid on it, and the four corners set on fire. He sprang up and fled.*

One fact should be kept in mind respecting this disease. The real epileptic is desirous of concealing his situation, and attaches to it a kind of false shame; while the feigned talks about the disease, and takes no precaution to avoid publicity.†

Convulsions, when feigned, do not present that stiffness of the muscles, or that resistance and rapidity of action, which appear in the real. The treatment must be similar to that of epilepsy. Twenty years ago, says Foderè, I proved, by the aid of fire and force applied to the antagonist muscles, that a woman who had imposed on a good curate in the Alps, was an impostor. She was supposed to be possessed, fell down apparently without sense, and made fright-

* De Haen's *Ratio Medendi*, vol. 2, p. 56, &c. The following case should not be omitted. "Maturam virginem procorum penuria torquet, angitque. Forte casu audit a garrientibus inter sese matronis epilepsiam matrimonio nunquam curari. Ergo eam artificiose fingere discit, quo cogat parentes se viro jungere." (Ibid. p. 55.) The following is a case in point, with respect to the *aura epileptica*. Sauvages was called to visit a female, who imitated the fit to perfection. He was, however, suspicious concerning its reality, and therefore enquired, whether on the access of the disease she felt pain extending from her arm to her shoulder, and from thence to the opposite thigh. She replied that she did, and thus led to her detection. (Belloc, p. 243.) There are also some instructive cases of feigned epilepsy in Blatchford's Dissertation, already referred to.

† Dumas of Montpellier, in his work on the *Physiognomy peculiar to some Chronic Diseases*, mentions, that in constitutional epileptics, the facial angle is always under 80°, and recedes from that to 70°. He found this to be the case in many instances, at the hospital in Toulouse. (London Med. and Phys. Journal, vol. 27, p. 38.) This is a remark which deserves further investigation.

ful contortions. She could not, however, withstand the above tests, and rose up, to her great confusion and the astonishment of the spectators.* Similar proofs ought to be applied to those cases of *chorea* which are not unfrequently seen in our streets. It has been satisfactorily ascertained, that in some instances the disease is assumed to impose on public beneficence. *Ecstacies* and *possessions* are now with justice considered impossible, and those who pretend to them as impostors. There is, however, one form of disease nearly allied to those we are noticing, which deserves some attention. I allude to *catalepsy*. Its nature is but little understood; but we are informed that the patient is suddenly motionless, while the joints remain flexible, and that external objects make no impression. There seems no reason to doubt that real cases have existed;† but if there be any cause for suspicion, the remedies already indicated should be administered.‡ The state of insen-

* Foderè 2. p. 463. The following is quoted from the *Journal Des Savans* for January 1710. "Un mendiant de Flandre se faisait boucher le siege tous les matins fort exactement; et il avalait ensuite une demi-livre de beurre, avec une certaine dose de mercure ce qui lui donnait des mouvemens si extraordinaires, que chacun le jugeait possédé. Le soir il se débouchait la partie, qu'il avait bouchée le matin, et il vidait par-là son esprit malin." (Ibid. p. 466.)

† Some remarkable cases of *catalepsy* are related in the Mem. of Literature, vol. 3, pages 100, 194, by Dr. Deidier, professor at Montpellier. See also Med. Comment. vol. 10. 242; and Amer. Med. & Phil. Reg. vol. 1, p. 47.

‡ Dr. Gooch quotes the following case of feigned catalepsy from Mr. Abernethy's Hunterian Oration. "A patient in the hospital feigned to be afflicted with catalepsy; in which disorder it is said a person loses all consciousness and volition, yet remains in the very attitude in which they were suddenly seized with this temporary suspension of the intellectual faculties. Mr. John Hunter began to comment before the surrounding students on the strangeness of the latter circumstance; and as the man stood with his hand a little elevated and extended, he said, 'You see, gentlemen, that the hand is supported merely in consequence of the muscles persevering in that action to which volition had excited them prior to the cataleptic seizure. I wonder,' continued he, 'what additional weight they would support;' and so saying, he slipped the noose of a cord round the wrist, and hung to the other end a small weight, which produced no alteration in the position of the hand. Then, after a short time, with a pair of scissors, he imperceptibly snipped the cord. The weight fell to the ground, and the hand was as suddenly raised in the air, by the increased effort which volition had excited for the support of the increased weight. Thus was it manifested that the man possessed consciousness and volition, and the imposture stood revealed." Transactions of the College of Physicians of London, vol. 6, p. 272.

sibility which some have feigned, might possibly, if real, be referred to this. Dr. Smith makes mention of a soldier named Drake, who assumed an appearance of total insensibility, and resisted for months every sort of treatment—even the shower bath and electricity; but on a proposal being uttered in his hearing, to apply red hot iron, his pulse rose, and an amendment shortly took place.* The case of Phineas Adams, which lately occurred in England, shows to what individuals will submit, in order to escape punishment. He was a soldier in the Somerset militia, aged eighteen years, and confined in gaol for desertion. From the 26th of April to the 8th of July 1811, he lay in a state of insensibility, resisting every remedy, such as thrusting snuff up the nostrils, electric shocks, powerful medicines, &c. When any of his limbs were raised, they fell with the leaden weight of total inanimation. His eyes were closed, and his countenance extremely pale; but his respiration continued free, and his pulse was of a healthy tone. The sustenance he received was eggs diluted with wine, and occasionally tea, which he sucked in through his teeth, as all attempts to open his mouth were fruitless. Pins were thrust under his fingernails to excite sensation, but in vain. It was conjectured that the present illness might be owing to a fall; and a proposal was consequently made by the surgeon to perform the operation of scalping, in order to ascertain whether there was not a depression of the brain. The operation was described by him to the parents at the bed-side of their son, and it was performed—the incisions were made, the scalp drawn up, and the head examined. During all this time he manifested no audible sign of pain or sensibility, ex-

* Smith, p. 471. See also Edin. Ann. Reg. vol. 9, part 2, p. 49. I presume this is the case which is mentioned by Dr. Hennen, (p. 458) under the title of *Somnolency combined with mental hallucination*. The approach, not the touch of a hot wire caused abundant marks of sensibility. The muscles of his face also were strongly and involuntarily affected when a shower-bath was applied. Dr. Smith recommends, that in such cases, a drop of boiling water be suddenly poured on the naked back.

cept when the instrument with which the head was scraped, was applied. He then, but only once, uttered a groan. As no beneficial result appeared, and as the case seemed hopeless, a discharge was obtained, and he was taken to the house of his father. The next day he was seen sitting at the door talking to his parent; and the day after, was observed at two miles from home, cutting spars, carrying reeds up a ladder, and assisting his father in thatching a rick.*

Nostalgia, or *maladie du pays*, is a disease common in military hospitals. This mental affection, if carried to excess, soon produces a physical one, and a mixed state is produced, in which all the marks of melancholy and hypochondriasis are visible. Young men are more subject to it than persons advanced in life, villagers more than citizens; and among nations, it is found to prevail most in the Swiss, the Savoyards, the inhabitants of the Pyrenees, the Flemings, &c. Besides the above considerations, and that alteration of countenance which it is impossible to feign, it may be added, that "pretenders generally express a great desire to revisit their native country, whilst those who are really diseased, are taciturn, express themselves obscurely on the subject of their malady, dare not make an avowal, and are little affected by the consolations which hope or promises offer to them."†

"It is curious to observe," says Foderè, "how many young men have, during the last twenty years, worn convex glasses, in order to acquire *myopia*, or *near-sightedness*; which, however, is not the certain consequence, but more commonly this practice leaves a weakened and defective sight, differing from it, and also from that which is the effect of old age. It is not from an inspection of the eye, nor from the account of the individual, that we can judge concerning

* Edinburgh Annual Register, vol. 4, part 2, p. 159.

† Foderè, 2. 463, from the Bulletin des Sciences Med. de la Soc. D'Emulation. See a real case of Nostalgia by Dr. Rob. Hamilton, in Med. Comment. 11. 343.

the reality of the complaint ; but it may be ascertained by presenting an opened book, and applying the leaf close to the nose, or by putting on glasses proper for near-sighted persons. If the individual cannot read the book distinctly when placed thus, or when the above glasses are used, we may feel confident that his disease is feigned."* This mode of examination should be strictly adhered to ; since, as far as my observation has extended, no complaint is more frequently urged by those who wish to avoid military duty, than near-sightedness.

Ophthalmia, has often been artificially excited by the application of various stimulant remedies. It is, however, readily detected by the rapidity of its progress. *It arrives at its acme within a few hours after the application of the acrid substance.* Some information may also be derived from noticing which eye is affected. A few years since, when an extensive system of deception prevailed in the British 28th regiment of foot, Dr. Vetch observed that the counterfeit inflammation was almost solely confined to the right eye.† A left-handed man would probably inflict the injury on the left eye.‡

That species of *blindness*, which originates from amaurosis, is strongly characterized by the dilated and fixed pupil. There are, however, cases in which the pupil retains some contractile power, although we know the sight to be lost. In such an instance, epispastics, and setons, are proper ; and if suspicion exists, the patient should be watched, to see whether he does not avoid obstacles put in his way. If this be carefully pursued, the deceit is often detected. The following case, however, occurred to Mahon. A young conscript was sent to the corps blockading Luxemburg. Having passed the night at the advanced posts, he declared himself blind the next morning, and was sent to the hospital. The surgeons used the most powerful remedies, and were

* Foderè, 2. 480.

† Edin. Med. & Surg. Jour. vol. 4. p. 158.

‡ Hennen, p. 465.

convinced that the disease was feigned, as the pupil contracted perfectly. He assured them, however, that he could not see, thanked them for their care of him, and asked for the application of new remedies. He was sent to the superior medical officers at Thionville. They also were convinced that it was a fraud; but having learnt the course that had been pursued, they determined on a last trial. He was put on the bank of a river, and ordered to walk forward. He did so, and fell in the water; from which, however, he was immediately taken by two boatmen stationed for that purpose. Convinced of his blindness, but unable to explain the dilatation and contraction of the pupil, the surgeon gave him a discharge, but warned him at the same time, that if his disease was feigned, it would prove of no avail, as it would sooner or later be ascertained that he was not blind. They offered him another, if he would confess the fraud. He hesitated at first; but being at length assured that they would keep their word, he took up a book and read.* “The proof in this case,” says Foderè, “would have been complete, if, instead of a river, he had been put on the edge of a precipice, where he might see that nothing could prevent his destruction—but *what if he had been really blind?*”

Pretended deafness, may be detected by making a noise at a moment least expected. This excites a sensation which it is difficult to conceal. Acute persons will also always find some mode of ascertaining the truth. A deserter, condemned to labour in the canal at Arles, said he was deaf, and passed for such with his comrades and guards. Being brought before the inspector to be examined, he appeared such as he stated, until Foderè spoke to him in a low tone of voice, saying, “You cannot persuade me that you are deaf; but if you will confess the truth, you shall have your discharge.” To the astonishment of all, he answered, “Very well; I am not deaf.”† Again,

* Mahon, 1. 360.

† Foderè, 2. 475.

a conscript stated that he was deaf. The general who visited for the purpose of examination, let fall a piece of silver behind him. The deaf person turned his head round towards the place from which the noise proceeded, and by this means was detected.* “Who would believe,” says Baron Percy, “that by exercise, some young men have so successfully affected deafness, that a fire of musquetry exploding suddenly at their side could not draw from them the least mark of fear or surprise? I knew one, however,” he adds, “who betrayed himself at last before his judges, at the sound of a small piece of money designedly dropped on his foot, while it was whispered in his hearing, that he was surely going to be discharged.”*

Those who pretend to be *deaf and dumb*, have a still more arduous part to play, and need an art and perseverance of which few are capable. Such who are really in that unhappy situation, acquire a physiognomy and certain gestures which it is difficult to assume, and which it is impossible to prepare for every examination that may be made. In reviewing the histories of those pretending deafness and dumbness, it has been found, says Foderè, that women have been the most successful, and the sex fondest of talking are the most capable of feigning dumbness.

The Abbe De L’Epée was deceived by a pretended deaf and dumb person, who feigned to be the son of Count De Solar. Sicard, however, his successor, was more fortunate in detecting the villany of another, whose ingenuity resisted for four years, an infinite number of investigations made on him in France, Germany, Switzerland, Spain and Italy. This young man was named *Victor Foy*, and was from Luzarche, six leagues from Paris; but called himself *Victor Travanait*—travelling, as he said, in search of his father, but in reality to avoid military duty.

He was imprisoned in various countries, watched closely, and examined most rigidly, without being

* Belloc, p. 252.

† New-York Med. Repository, vol. 17, p. 359.

detected. So perfectly, indeed, had he accustomed himself to his part, that when he avowed the fraud, to use his own expression, he had unlearned how to hear. In Switzerland, he was tempted by a young and beautiful woman, who offered him her hand, but without effect. In the prison at Rochelle, the turnkey was ordered to sleep with him, to watch, and never to quit him. He was repeatedly awakened in a violent manner, but his fright was expressed by a plaintive noise, and in his dreams guttural sounds alone were heard; and the hundred prisoners, who were all ordered to detect him if possible, could discover nothing from which they could imagine deceit. At last the officer charged with the police of the prison of Rochelle, became satisfied, after many examinations, that he was really deaf and dumb, and declared this in the public journals, so as to obtain his liberty. Victor unhappily at this period went beyond his capacity. He stated himself in writing to be an élève of the Abbe Sicard. This ingenious and worthy individual denied the fact without seeing him, and proved it from the writing. "I cannot tell," said he in a letter to the counsellor of state, Real, "whether this person, confined at Rochelle, be really Victor Travanait, or not; but I can say positively that he was not born deaf and dumb." The reason which he assigned for this opinion, was, that he wrote from sound, while the deaf and dumb write only as they see. In his letters he appeared so ignorant as to divide some words, and annex prepositions to others, as if they were constituent parts. The following extract will serve as a specimen: "*Je jur de vandieux, ma mer et nè en Nautriche, quhonduit (pour conduit) essepoise (pour espoir); torre (pour tort); ru S. Honoret, j'ai tas present (pour j'étais present); jean porte en core les marque (pour j'en porte encore les marques).*" It will be observed, that in this letter, Victor uses *q* instead of *c*; and from this Sicard inferred that he had heard, and knew that the sound of these gutturals was similar. He concluded by stating

his conviction that Victor was not born deaf, and of course was not dumb.

The criminal was now brought to the institution for the deaf and dumb at Paris, and placed before the black board. He was ordered to write answers to questions put to him by Sicard, which he did in so able a manner, and eluded the most embarrassing questions so ingeniously, that nothing but his orthography could yet be adduced against him. Sicard had taught his pupils to articulate sounds, and he had done this by showing them the words as it were, by the apparent effects of touches on a musical instrument, and then pressing their arms more or less strongly. During this operation, he obtains at pleasure the hard or soft consonant, which serves as a sign for the required articulation. Victor, when put to this proof, instead of the syllable *pa*, pronounced only the vowel *a*, and never uttered the labial consonant, which all the deaf and dumb easily articulate. He was then put to the last test. When asked how he had been instructed, he answered by signs, and promised to explain by them such words as they might write on the black board, but could not do so. He was then placed among those who were really deaf and dumb, but understood nothing from them, nor could they comprehend him. Frightened at this detection, and still more so at the threat he had heard, that he would be confronted with the pastry cook, to whom he had been an apprentice, he at last took up a book and read.*

It is an observation of the author from whom I have taken this case, that it was Victor's folly alone which detected him. Had he not asserted that he was a pupil of Sicard, he might have escaped. But he was ignorant that all were educated alike, and of course, should express their ideas in a similar manner.†

* Foderè, vol. 2, p. 478-9. When Mr. Clerc, the distinguished teacher of the deaf and dumb at Hartford, visited Albany, he informed me, that he was one of the pupils who assisted in detecting Victor.

† A case of pretended deafness and dumbness in this country, by a person named *James Stilwell*, was detected by Mr. Clerc in 1822. The imposture

From the enumeration now made, it will be seen that cases of feigned diseases occur most frequently in the military profession. And the surgeon, whose business it is to investigate such, should recollect that a double duty is required of him. He is to guard the interests of the public, so that they be not injured, and also those of the individual, so that he be not unjustly condemned.*

Pretended pregnancy and delivery, and feigned insanity, will be noticed in subsequent chapters. And I shall conclude the consideration of the present topic, by remarking, that physicians are not unfrequently called upon to examine *impostors*, or those who feign diseases *which can have no existence*. The full consideration of these, however, belongs strictly to medical police; since they are seldom subjects of legal investigation.

It has generally been the case, that the hope of exciting public curiosity, and of course, commiseration and charity, has been the moving principle of impostors; and they have justly imagined, that the feigning of ailments contrary to the course of nature and the experience of mankind, would most readily answer the purpose.

Abstinence for a great length of time, is the most frequent, as well as the most successful of these deceptions; and the reason is obvious. It is practicable to a certain extent, and the most constant and minute attention is requisite to detect the falsehood. The most noted, because it is the most modern case, is that of Ann Moore, the fasting woman of Tutbury, (Eng.) According to her account, she commenced in March 1807, and continued fasting for six years. At the end of that period the imposture was discovered, in consequence of a watch placed over her; and it was

in this instance was, however, more clumsy than in the one in the text. See the National Gazette, Sept. 14, 1822.

* Dr. Smith observes that in military hospitals, he has seen wonderful cures effected by a medicine, which went under the mysterious name of *mistura diabolica*. It was a composition of salts, assafoetida, aloes, &c. and was given frequently, in small quantities, so as to keep the taste continually in the mouth. (Page 467.)

ascertained that her daughter secretly gave her food and drink. The *cui bono* is readily explained from the statement of Dr. Henderson, who observes that she made so much by the exhibition of her person, as to place £400 in the stocks. She had, however, the power of abstaining from food for a considerable length of time. During the last watch, she received none for nine days and nine nights.*

I will add only one case to the preceding. Cicely De Rydgeway, in the 31st year of Edward III. was indicted, and condemned for the murder of her husband. It is stated that she fasted in prison forty days. A record, lodged in the tower of London, contains an account of this remarkable abstinence—attributes it to miraculous power, and adds, “*Nos ea de causa, pietate moti ad laudem Dei, et gloriosæ Virginis Mariæ, matris suæ, unde dictum miraculum processit, ut creditur.*” It concludes with a full pardon of the criminal.†

* Observations on this case may be found in the 5th and 9th vols. of the Edinburgh Medical and Surgical Journal, and also in the London Medical and Physical Journal, vols. 21, 24, 29 and 30.

† London Medical and Physical Journal, vol. 31, p. 50. I add the following references for the use of those who may be desirous of examining the subject of abstinence. A female in Germany, who imposed on the public for two years. London Med. and Phys. Journal, vol. 7, p. 190.—*Mary Thomas*. London Med. & Phys. Jour. vols. 21 and 30.—Hildanus, Ramazzini, Block, Doebel, Fontenelle, and Dr. Willan, are quoted by Mr. Granger and Dr. Henderson, in their papers on Ann Moore's case in the Edinburgh M. & S. J. vols. 5 and 9.—Cases are also recorded in *Stalpart Van Der Wiel*, vol. 2, Observ. 15—*Haller's Physiology*, vol. 5, p. 168—*Schurigius' Chylogogia*, chap. 4—*Edinburgh Medical Essays and Observations*, vol. 5, part 2, pages 1 and 6—*State Trials*, Emlin's edition, vol. 5, p. 482. Trial of Richard Hatheway, for a cheat and impostor, at Surry assizes, March 24, 1702. Among other things, he said that he had been bewitched by one Sarah Murdock; and in consequence of this, he could not eat, but fasted ten weeks—*Harleian Miscellany*, vol. 4, p. 41. A discourse upon abstinence, occasioned by the twelve months' fasting of Martha Taylor, the famed Derbyshire damsel, by John Reynolds, surgeon—*Memoirs of Literature*, vol. 3, p. 112. Account of a Swedish damsel, who has lived six years without food, attested by the Bishop of Skara, (West Gothland)—*Republic of Letters*, vol. 2, p. 439. History of a singular and extraordinary distemper in a woman, by Dr. Michelletti—*Philosophical Transactions*, vol. 14, p. 577; vol. 28, p. 255; vol. 31, p. 28; vol. 42, p. 240; vol. 67, p. 1—*Medical Commentaries*, vol. 14, p. 360. *Quarterly Journal of Foreign Medicine and Surgery*, vol. 5, p. 190.

CHAPTER II.

DISQUALIFYING DISEASES.

Disqualifications in civil cases—in criminal cases. Disqualifications for military service. Classes exempted by the law of the United States. Law of the state of New-York on exemption from military duty. Regulations in Great Britain concerning diseases which disqualify from military duty. Regulations for exemption in France. Tables of diseases which exempt from military duty in that country. Report on this subject to the legislature of the state of New-York by the surgeon-general. Laws on the giving of certificates.

This chapter, and the one preceding it, are intended principally for the use of the military physician and surgeon. But although the subject of disqualifying diseases falls peculiarly under their notice, yet there may be numerous instances in civil life, where the opinion of the medical man is required concerning them. He may be directed, for example, to ascertain whether an individual is fit to serve on a jury, whether he is able to attend as a witness, or whether he is competent to take on him certain offices or duties. Again, a physician may be ordered to investigate the condition of a criminal, and to report whether he is capable of undergoing hard labour, or of suffering other severe punishments that are inflicted by the justice of his country.

I shall accordingly consider this subject as follows :

1. As to the disqualifications in civil and criminal cases.
2. As to the disqualifications for military service.
3. As to the rules for certificates, and the law respecting them.

I. Of disqualifying diseases in civil and criminal cases.

In civil cases, the presence of acute diseases should undoubtedly exempt from the performance of most of the offices or duties to which an individual can be cal-

led. The imminent danger which may follow from muscular exertion, together with the weakened state of the mental faculties, which generally accompanies these ailments, renders a demand for such performance cruel and oppressive. And accordingly, in all countries, where the law governs, the proof of this is deemed a sufficient exemption. But there may be diseases, on which a doubt exists, whether the required exertion would prove injurious ; as, for example, rheumatism, asthma and particularly epilepsy. Concerning such, it would be idle to give any specific rules, farther than to observe, that it behooves the examining physician to enquire into the nature of the particular case, and from his knowledge of it, to be guided in his testimony. Should there be a patient liable to convulsive affections, and who is only preserved from frequent attacks by being kept calm and sequestered, he certainly would not be a proper person to serve on a jury, or to be kept for a length of time as a witness before a crowded court. The same remark applies to those who are laboring under infirm health, or a predisposition to consumption, who have symptoms of aneurism, of stone in the bladder, &c. or who suffer from periodical or continued attacks of pain in one or the other organs. The humane, and therefore the just rule in all these cases, is to exempt the subjects of such maladies from all duties that are not indispensable.

The distinction, however, should be kept in view, that many who are unable to travel without great danger, may still be examined at their own houses, and that thus the ends of justice can, in a great degree, be answered.

As to criminal cases, it is equally unnecessary for me to enlarge, since the well known humanity of our country renders it superfluous. I may, however, remark, that while acute diseases deserve commiseration and attention, as much as in the preceding instances, there are also some maladies which should prevent or delay the execution of the higher punish-

ments. We can readily imagine a state of body in the criminal, that would make the application of irons to his limbs, or the condemnation to hard labour, a sentence more dreadful than death itself.

In all cases, whether of a civil or criminal nature, every thing must depend on the skill of the physician, and the correctness of his testimony concerning the diseased person. As it is impossible to suggest specific rules, applicable to every instance that may occur, so it will be his duty to study the peculiar symptoms and indications with great attention, and while he leans to the side of mercy, avoid being deceived by feigned representations of imaginary maladies.*

II. *Of disqualifications for military service.*

In every state, however despotic, there are certain classes of individuals exempted from military duty. This is in fact deemed indispensable, even with those who consider the male population merely as the material for armies. There must remain some to renew the waste of war—some to support the females and children of the nation, and others to protect them from injury.

The Jewish lawgiver, in his statutes, mentions several classes who were exempted from this duty, and in particular, all married persons during the first year of their marriage.† And similar provisions are to be traced in the laws or customs of all countries.

In the United States, by a law of congress, all persons under eighteen years of age and above forty-five, are exempted. The importance of this regulation in time of war is incalculable, since it prevents the destruction of such whose strength is not yet matured, as well as those who are already feeling the advances of age. It is also understood, that there are many diseases which disqualify and exempt from military duty. The law of the state of New-York directs,

* See on this subject, Foderè, vol. 2. p. 431, &c.

† Deuteronomy, 24. 5. See Michaelis, vol. 3. p. 34, for an enumeration of the classes that were exempted.

that the age and ability to bear arms of every enrolled person, shall be determined by the commandant of the company, with the right of appeal to the commanding officer of the regiment; and it adds, what indeed must now appear superfluous, "*that the certificate of a surgeon or surgeon's mate shall not be conclusive evidence of the inability of any person to bear arms.*"* The phraseology of this section would lead one to suppose that great doubt was entertained of the integrity or capacity of the medical staff on the subject of certificates. It appears, however, that their opinion is to be taken, and is then to be judged of conclusively by so enlightened and learned a body as the respective captains of companies. The enquiry follows, *what diseases should incapacitate from military service?* I shall endeavour to answer this question for the benefit of the surgeons, but not with the faintest hope of informing the other branch of the military order.

With a solitary exception which I shall hereafter mention, we have no written rules to guide the American military surgeon. The warlike governments of Europe have, however, found it necessary to prepare regulations, many of which might be introduced with utility into our own system. And indeed it is deserving of consideration, whether a list of the diseases that partially or totally exempt, should not be prepared for the guidance of the medical staff.

The instructions given by authority to the English army surgeons, are thus quoted by Dr. Smith: "It is the duty of the regimental surgeon to inspect and examine recruits before final approval.† He is to be careful not to certify to any man's fitness for service, whose state of health he has not minutely investigated. The recruit, at his examination, is to be stript of all his clothes, in order that it may be ascertained that

* See the "Act to organize the militia," passed April 23, 1823.

† Final approval refers to the time when the recruit joins his corps. He may be enlisted at some distant part of the country, and approved; but on reaching the place where he is to be formed into a soldier, he must be examined anew by the commanding officer and surgeon.

he has no mark of punishment, no rupture, or scrophulous affection of the glands; that he has the perfect use of his eyes and ears, the free motion of every joint and limb; that he has no sore leg, nor mark of an old ulcer, with adhesion of the skin to the bone; no varicose veins, nor diseased enlargement of bones or joints: he must neither be consumptive, nor, so far as can be ascertained, subject to fits. With any of these defects, the man is to be reported unfit for service.”*

The military system of France being more perfect than that of any other nation, it might be expected that rules on this subject would be formed; and accordingly we find that such were promulgated at an early period after the revolution. A number of the inspector generals, (viz. *Coste, Biron, Heurteloup, Villars, Parmentier, Bruloy, Imbert and Kanens,*) were constituted a counsel of health of the armies; and they prepared certain tables of diseases, which partially or totally exempted from military duty. This was done during the reign of the directory, (year 7 of the republic;) but they were incorporated into the *code de la conscription* by Bonaparte, and doubtless are still in force.

Among the preliminaries necessary to obtain an exemption, are the following: Every conscript who pleads bad health or bodily inability, must appeal in the first instance to his municipal administration; and he is not entitled to present himself for this purpose, unless he bring a certificate from a health officer, that he is really affected with a disease which appears to him to authorise an application. He is then to be examined by a health officer in presence of the administration, if he be capable of attending, or in presence of a delegate from it, if he be totally unable to attend in person. Before any dispensation be granted, the commissioner of the executive directory

* *Instructions for the regulation of army hospitals*, quoted by Dr. Smith, p. 435—6. This author recommends that the following should be added to the above list—insanity, imbecility, dumbness, and deformity of limbs.

must be heard ; and he may, if any doubts be entertained, require a counter-examination. When the municipal administration consider any appeal to be without foundation, the conscript is obliged to join the army without delay. When they consider themselves incompetent to decide upon the appeal, the conscript is allowed to present himself immediately before the central administration, for their decision. And the municipal administration can only grant *definitive* dispensations in cases of palpable and notorious infirmities. They may allow *provisional* ones, not exceeding three months, when acute diseases or accidents prevent the conscript from presenting himself.

All the decisions of the municipal, must be sent to the central administration, for their approbation or rejection ; and if they refuse to ratify them, the conscript must again be examined. Lastly, when they confirm a dispensation, it is sent to the minister of war, who forwards an exemption to the conscript, or annuls the dispensation.

A distinction is also made as to the diseases to be judged of by the respective administrations. The municipal can only take cognizance of palpable and notorious infirmities ; while every application for a dispensation, definitive or provisional, for diseases not obvious, or which do not prevent the applicant from attending at the capital of the department in person, must be judged by the central administration.*

The officers of health, in giving their opinion, are directed to regulate themselves by the following tables :

TABLE I. *Evident infirmities, implying absolute incapability of military service, and which are left to the decision of the municipal administrations of the canton.*

1. Total privation of sight. 2. The total loss of

* Edin. Med. and Surg. Journal, vol. 6, p. 138, 139

the nose. 3. Dumbness ; permanent loss of voice ; complete deafness. If there be any doubt of the existence of these infirmities, or if they do not exist in a great degree, the decision is to be reserved for the central administration. 4. Voluminous and incurable goitres, habitually impeding respiration. 5. Scrophulous ulcers. 6. Confirmed phthisis pulmonalis, i. e. in the 2d or 3d degrees. Care should be taken to report the symptoms characterizing this state ; and as they are but too evident, they ought to procure an absolute dispensation. But for commencing phthisis, asthma and hæmoptisis, the municipal administration ought to grant only a provisional dispensation, if the person be incapable of presenting himself before the central administration ; the decision in these different cases being reserved to the latter. 7. The loss of the penis, or of both testicles. 8. The total loss of an arm, leg, foot, or hand. The incurable loss of motion of these parts. 9. An aneurism of the principal arteries. 10. The curvature of the long bones ; rickets and nodosities sufficient evidently to impede the motion of the limbs. Other diseases of the bones, although great and palpable, are sometimes liable to doubt, and therefore are reserved for the judgment of the central administration. 11. Lameness (claudication) ; well marked, whatever be the cause ; this must be precisely stated. The same is the case with considerable and permanent retraction of the flexor or extensor muscles of a limb, or paralysis of these, or a state of relaxation impeding the free exercise of the muscular movements. 12. Atrophy of a limb, or decided marasmus, characterised by marks of hectic and wasting, which should be stated in the report.

TABLE II. *Infirmities or diseases which occasion absolute or relative incapacity for military service, and which are reserved for the examination and opinion of the central administrations of the department.*

1. Great injuries of the skull, arising from consid-

erable wounds, or depression, exfoliation, or extraction of the bones. These sometimes occasion all, but commonly several of the following symptoms : affection of the intellectual faculties, giddiness, swimming in the head, drowsiness, nervous or spasmodic symptoms, frequent pains of the head. 2. The loss of the right eye, or of its use. This defect disqualifies a man for serving in the line, but does not prevent him from being useful to the army in other services, or in the marine. 3. *Fistula lacrymalis*, chronic ophthalmia, or frequent rheums in the eyes, as well as habitual diseases of the eye-lids or lacrymal passages, of such a nature as obviously to injure the powers of sight. 4. Weakness of sight, permanent defects of vision, which prevent objects from being distinguished at the distance necessary for the service of the army, short-sightedness, night-blindness, confusion of vision. In a note, it is observed, that these affections of the sight are often difficult of decision ; and it is recommended to the surgeon to ascertain the effect of glasses on the persons complaining of near-sightedness.* *Nyctalopia*, it adds, is rare in youth, and often only temporary ; while *amblyopia*, or confusion of vision, may be known with some certainty, when we perceive that the pupils have changed their diameter, or when they have lost somewhat of their mobility or regularity. This, however, is not always present, and in doubtful cases, it is directed, that the testimony of ten individuals, not relatives of the appellants, should be brought, affirming the existence of these defects. 5. Deformity of the nose, capable of impeding respiration to a considerable degree, *ozæna*, and every obstinate ulcer of the nasal passages, or palate, caries of the bones, and incurable polypi. 6. Stinking breath from an incurable cause, as well as foetid discharges from the ears, and habitual transpiration of the same character, when incurable. Soldiers who emit these foetid exhalations, are rejected

* See chap. 1, p. 22.

by the corps, and repulsed by their comrades. 7. Loss of the incisive or canine teeth of the upper or under jaw ; fistulas of the maxillary sinuses ; incurable deformity of either jaw by loss of substance, necrosis, or other cause, hindering the biting of the cartridge, or impeding mastication, and injuring the speech. A person without canine or incisive teeth, cannot be a soldier of the line, but may be employed in other services. 8. Salivary fistulas, and the involuntary flux of saliva, when incurable. 9. Difficulty of deglutition, arising from paralysis, or some other permanent injury, or incurable lesion of the organs employed in that function. 10. Permanent and well established diseases of the organs of hearing, voice or speech, considerable in degree, and capable of impeding their use considerably. As these diseases are very doubtful, and may frequently be simulated, it is advised, that testimony proving their existence should be obtained, and the examination also should be repeated for several months at stated periods. An absolute or definite exemption need not to be given, as they yield to time and skill. 11. Ulcers and tumours of a decidedly scrophulous nature. The symptoms, if any be present, of a scrophulous cachexy, should be stated. 12. Deformity of the chest, or crookedness of the spine, sufficient to impede respiration, and to prevent the carrying of arms and military accoutrements. 13. Phthisis in the first degree, confirmed asthma, and habitual, frequent and periodical spitting of blood. The state of patients attacked with these diseases is often evidently bad, and accompanied by circumstances which leave no doubt ; they then admit of an absolute dispensation. Sometimes they are less decided, when only a provisional judgment is to be given. 14. Irreducible hernias, and those which cannot be reduced without danger. 15. Stone in the bladder, gravel, habitual incontinence or frequent retention of urine, as well as severe diseases, or lesions of the urinary passages, fistulas of these parts, whether incurable, or requiring constant medical assistance. In a note, it

is remarked, that retention of urine produces well known symptoms, which will guide to a knowledge of the true state of the case. Incontinence may be simulated with less danger of detection, and apparently in order to avoid the advantage that might be taken of this, it is directed, that if the young man has, in other respects, a healthy and vigorous look, *he may be sent to the army without any inconvenience.* 16. The permanent retraction of a testicle, its strangulation in the ring, sarcocele, hydrocele, varicocele, all severe affections of the scrotum, testicles or spermatic cords, known to be incurable. 17. Ulcerated hæmorrhoids, incurable fistula in ano, periodical and incurable hæmorrhoidal flux, habitual and chronic flux of blood from the intestines, habitual incontinence of fæces, habitual prolapsus ani. These ought to be stated by able health officers, who have for a length of time treated and observed the patient; and a provisional dispensation is only to be given until their incurability is established. 18. The total loss of a thumb or great toe, of the forefinger of the right hand, or two other fingers of one hand, or two toes of one foot; the mutilation of the last joints of one or several toes or fingers; the irremediable loss of motion of these parts. These, although they interfere in different degrees, with several parts of the infantry service, do not unfit for other duties, such as miners, sappers, pioneers, or even for cavalry duty, if the mutilation of the toes or right hand be not considerable. If, therefore, the petitioner, on account of any other mutilation than the loss of the thumb, is in other respects strong and of a robust constitution, he ought to be sent to the army. 19. Incurable deformities of the feet, hands, limbs, or other parts which impede marching, or handling of the arms, or carrying the accoutrements, or the free motion of any weapon. These may produce only a relative invalidity, and hence the physical effects arising from them should be stated. 20. Large and numerous varices. 21. Cancers and ulcers, which are inveterate, of a

bad character, incurable, or whose cure it would be imprudent to attempt. The state of body accompanying them should be mentioned. 22. Large and old cicatrices badly consolidated, especially if they have adhesions, and are accompanied by the loss of substance, covered with crusts, or attended with varices. 23. Severe diseases of the bones, such as diastasis or separation, ankylosis, caries or necrosis, spina ventosa, osseous tumours, and those of the periosteum, when considerable, or situated so as to impede motion, and which have been treated without success. 24. Diseases of the skin, when they are capable of communication, when they are old, hereditary or obstinate, as tinea, acute, moist and extensive herpes, obstinate and complicated itch, elephantiasis, lepra. In all these cases, a definitive dispensation cannot be granted, until after methodical treatment by very intelligent officers of health has been continued in vain, or unless the constitution of the patient be obviously injured. 25. Decided cachexy, of a scorbutic, glandular, or other nature, known to be incurable, and characterised by evident symptoms of long standing. Dropsies known to be incurable. 26. Debility and extreme extenuation, joined to a diminutive stature, or to a very tall one, out of the ordinary proportions. This case requires great judgment in deciding on it; and it is advised to adjourn the decision from quarter to quarter. "When a conscript has grown very rapidly, when he is tall, lean, and slender made, when he has a long neck, arms and legs, and when his breathing is difficult from the least exercise; such an individual is out of the question, until nature has added in strength, what it has hitherto confined to stature." 27. Gout, sciatica, inveterate arthritic and rheumatic pains, impeding the motions of the limbs and trunk. If these are present in an acute form, the conscript has a right to a provisional dispensation. But if they be chronic, particular attention should be paid to the condition of the parts. Gout seldom arrives to a high degree of

obstinacy, without leaving nodosities and sensible contractions, while protracted rheumatism alters the form of the muscles and colour of the skin, and causes a wasting of the part affected. The surgeon is warned, in cases where no sensible appearances prove the existence of rheumatism, not to mistake a feigned for a real disease; and the following acute remark is added: "As it is but just, that in some other equivocal cases, such as those respecting the diseases of the breast, humanity should incline to the conscript's side; so with respect to pains and rheumatism, which are not proven, it is equally proper to prefer severity to indulgence, *as military exercise, far from aggravating the predisposition, if it exist, will only contribute to remove it.*" 28. Epilepsy, convulsions, general or partial convulsive motions, habitual trembling of the whole body, or of a limb, general or partial palsy, madness and imbecility. The surgeon in this class of cases, is to be particularly careful not to be deceived by a simulated disease.*

The only American publication on this subject with which I am acquainted, is a report made by Dr. Samuel L. Mitchill, surgeon general of the militia of New-York, to his excellency Governor Clinton, and communicated to the legislature of this state at their session in 1819.† The bodily disabilities for military service are arrayed by Dr. Mitchill into classes, with reference to various parts of the body; but the diseases enumerated by him are all included in the tables just quoted, and it is therefore not necessary to repeat them.‡

I apprehend that there could be no difficulty in preparing a list of disqualifying diseases, adapted to

* These regulations are published in French in Belloc, p. 344 to 362; and a translation of them, which I have used, is contained in the Edin. Med. & Surg. Journal, vol. 6, p. 138 to 147.

† Assembly Journals for 1818, p. 25.

‡ As another testimony of the value of the directions quoted from the "Code de la Conscription," I may adduce the opinion of Dr. Hennen. "I would," says he, "strongly recommend a perusal of it to all medical officers." And in his observations on the examination of recruits, he notices all its leading particulars. See page 450, &c.

our circumstances, from the extracts now given ; and as the French system is drawn with great severity, some latitude might be allowed in adding additional diseases. The duty required from our militia in time of peace is not arduous ; but it would be proper, I conceive, to apply the same rules to it in peaceful as in warlike times. And the object would be effected by preparing tables of temporary and permanent disqualifications, enjoining surgeons to grant certificates according to their specifications, and obliging them to report to a superior authority all cases not coming within their purview.

III. *Of the rules for certificates, and the laws respecting them.*

There are laws in all countries for punishing those who absent themselves from civil duties under false excuses, and it is not necessary to mention them in this place.

As to certificates for exemption from military duty, I will only observe, that the surgeon should feel himself bound by every principle of honour and of justice, not to injure the public, by granting them to individuals capable of bearing arms. His examinations should be precise, and frequently repeated. He should learn the history of the disease from the person complaining, and compare it at his leisure with his own knowledge, and that of others. Nothing can be more disgraceful, than that a surgeon—one who is supposed to know the nature and symptoms of disease—should be deceived by an individual who feigns his maladies.

If it would not appear presumptuous, I would suggest, that probably the best arrangement on this subject for our own country, would be, to prepare a list of disqualifying diseases, as already stated ; to direct by authority that these should guide the surgeon in his certificates ; and then give the colonel, or commanding officer of the regiment, a supervision over the certificates. This is the mode adopted in England ;

and it is certainly preferable to that which throws nearly all the power into the hands of the captains of companies.*

By the French law, "all officers of health, and others convicted of having given a false certificate of infirmities or inabilities, or of having received presents or gratifications, shall be punished by not less than one or more than two years imprisonment, or by a fine not less than 300 nor more than 1000 francs.†"

The law in this state forbids "any surgeon or surgeon's mate to take any fee or reward for giving a certificate."

CHAPTER III.

IMPOTENCE AND STERILITY.

Laws of various countries concerning impotence as a cause of divorce—

Roman law—canon law—ancient French law—Napoleon code—English law. Causes of impotence in the male—absolute—curable—accidental or temporary causes. English and French law on accidental causes as affecting paternity. Diseases that may produce temporary impotence. Causes of impotence in the female—incurable and curable. Sterility—incurable and curable—causes. American law on impotence as a cause of divorce.

A knowledge of this subject may become necessary in various ways, before judicial tribunals. An individual accused of committing rape, has been known to plead that he was physically incapacitated, while the legitimacy of children has been contested on a similar plea. These examples are sufficient to

* I copy the following from an English paper, as one of the grounds of exemption in that country from performing duty in the militia. "All persons laboring under such permanent infirmity as may incapacitate them from military service, to be certified in all cases, where practicable, by the surgeon of the district, appointed by the lieutenancy." Scotsman, Oct. 6, 1822.

† Edin. Med. and Surg. Journal, v. 6. p. 139.

shew the necessity of a brief notice of the physical signs of impotence; even were they not connected with the subject of divorce.

The laws of Moses, and afterwards the Roman law, permitted divorce at the pleasure of either party. The Christian law, however, declares marriage to be indissoluble; and Justinian, legislating on this principle, was the first monarch who prescribed the mode of obtaining divorce by law, and at the same time promulgated statutes as to impotence.* He ordained, that if the imbecility continued for two years after marriage, (which period was afterwards enlarged to three years,) the female should be entitled to a divorce.†

We are informed, that it was not until the twelfth century that this jurisprudence came into general use. The canon law, under which these cases were judged, always desired (at least in practice) that the defect should be shown to have existed before marriage; and that after its celebration, a certain period of time should have elapsed before a complaint was entertained, in order to ascertain whether the impotence was absolute, or only accidental. These dispositions of the canon law were adopted into the civil law of ancient France; and many arrets of parliaments have admitted the plea of impotence, and dissolved marriages of eight, twelve, and even fourteen years standing. Accidental impotence, however, in the sense I shall hereafter define it, was never deemed a just cause of divorce by any of these tribunals. In 1759, the parliament of France refused the application of a female, whose husband had been declared impotent during his first marriage, on the principle, that at his second nuptials, several years after, the physicians declared that he appeared to be cured of his disease.‡

* Gibbon's Rome, vol. 8, chap. 44, p. 64. † Code Justinian, Lib. 5, Tit. 17.

‡ Foderè, vol. 1, p. 361. It will astonish those who have not attended to this subject, to learn that there was a period in French jurisprudence when actual congress was a judicial proof in cases of impotence. At first it was conducted in a private manner, but afterwards became shamelessly public. This prevailed from the 13th century until the year 1677, when it was solemnly proscribed. Mahon, vol. 1. p. 70.

The Napoleon code does not expressly declare that absolute and incurable impotence is a dissolving cause of marriage ; but the course of legal proceedings under it leads to this conclusion. The court of appeals at Treves in 1808, in the case of a female, directed that she should be visited by medical men, who were to report to that tribunal, whether the supposed injury occurred before or after marriage, and whether it was remediable.*

The law of England, as laid down by Blackstone and his editor, is as follows : a total divorce is given whenever it is proved that corporeal imbecility existed before the marriage. In this case, the connection is declared to have been null and void, *ab initio*. Imbecility may, however, arise after marriage, but it will not vacate it, because there was no fraud in the original contract, and one of the ends of marriage, the procreation of children, may have been answered.†

There is, however, one case on record, which was decided on very different principles. I refer to that of the earl of Essex, in the reign of James the First. His countess transferred her affections to the royal favourite, viscount Rochester, (afterwards earl of Somerset,) and being desirous of a divorce, complained that her husband was impotent. She deposed, that for the space of three years they had lain together, and during that time, he had repeatedly attempted to have connexion with her, without success. She also stated, that she was still a virgin, and several peeresses and matrons, who were directed to examine her, corroborated this statement, although it is mentioned that she substituted a young female of her own age and stature in her place during the examination. She was also pronounced to be well fitted for having children. The earl, in his answer, admitted his inability to know her, while he denies his impotence as to other females, and insinuates his belief of her incompetency for copulation. After the examination of nu-

* Foderè, vol. 1, p. 362, 363.

† Blackstone's Commentaries, with notes by Christian, vol 1, p. 440.

merous witnesses, objections were raised by Abbot, the archbishop of Canterbury, and one of the king's delegates on this trial, on the propriety of dissolving the marriage on such grounds; to which the king vouchsafed an angry reply. It was finally decided by the vote of seven delegates, (five being absent, and not consenting) that the marriage should be dissolved, and the parties allowed to contract new marriages.*

The causes of impotence have been variously divided by different writers; but I conceive that I shall be best enabled to give a comprehensive view of them, by adopting the arrangement of Foderè, into *absolute, curable, and accidental or temporary*.

We shall first notice those in the male.

The absolute causes of impotence, or those for which there is no known relief, principally originate in some mal-conformation or defect in the genital organs, and these may be either natural or artificial. To this class, we refer the following—an absolute want of the penis. Cases are not unfrequently met with in medical works, where it is stated that the ureters were found terminating in the perinæum, or above the os pubis. Foderè observes, that he cured a young soldier of incontinence of urine, in whom there was a fleshy excrescence, like a button, in the place of the penis, and at which the ureters terminated. The testicles were well formed. Many cases are also on record of the penis being impervious.† An amputation

* Hargrave's State Trials, vol 1, p. 315. See also No. 1, in the appendix to vol. 8, being a narrative of the proceedings on the trial, drawn up by the archbishop of Canterbury. In the speech which he intended to have delivered on giving his opinion, he relates the case of one Bury, tried in 1561. His wife cited him before the ecclesiastical court on the ground of impotence. and the physicians deposed that he had but one testicle, and that no larger than a bean. The want of access was also proved. A sentence of divorce accordingly passed. After some time, Bury married again, and had a son by his second wife. A question arose, after the lapse of some years, whether the offspring was legitimate, and it was decided that *the second marriage was utterly void*, because the ecclesiastical court had been deceived in the opinion they had given on the impotency of Bury. (Page 22 of the appendix.)

† A most valuable and learned essay on this subject may be found in the Edin. Med. and Surg. Journal, vol. 1, p. 43 and 132, entitled, "An attempt

of that organ, or indeed of the glans penis alone—its curvature—a schirrous state of it, or a paralytic one, induced by injury to the nerves or muscles of the parts ; an unnatural perforation of the penis, or in other words, the extremity of the canal of the urethra, terminating at some place, other than its natural situation. This is deemed by some an absolute cause, while others assert, that though coition may be possible, yet it will prevent pregnancy. Belloc, however, relates that he knew a person at Agen, in whom the orifice of the ureters terminated at the bottom of the frænum, and who had four children resembling their parent, and what is still more remarkable, two of them had the same mal-conformation.* Much will depend in such cases, on the distance to which the orifice is thrown back. If it be very far, we have reason to believe that the marriage will be unfruitful.

The inability to propel the semen out of its vessels, is frequently to be considered as an absolute cause ; but generally it is a curable one.† I mention it, however, in this place, for the purpose of stating, that in several instances of this nature, there have been found, after death, a diseased state of the prostrate gland, or extensive strictures of the urethra.

The natural want of both testes, provided that ever occurs, or their artificial loss, is another cause. The removal of them by excision, and the frequency of this practice in some countries, is well understood. I may add, that there have been instances in which these organs have suddenly diminished and disap-

towards a systematic account of the appearances connected with that mal-conformation of the urinary organs, in which the ureters, instead of terminating in a perfect bladder, open externally on the surface of the abdomen—by Andrew Duncan, jun. M. D.” See particularly Matthew Ussem’s case, and page 54, on the genital organs of the male.

* Belloc, p. 50. Zacchias mentions another case. Dr. Francis states that there is an individual now living in the city of New-York, who, notwithstanding this mal-conformation, has two children. New-York Med. and Phys. Journal, vol. 2, p. 12.

† Morgagni declared a case, where the patient was thirty years old, and all the parts were properly formed, to be incurable. This opinion was founded on the idea that some of the internal organs were diseased. *Opuscula Miscellanea*, p. 43. *Responsum Medico-Legale super seminis emittendi Impotentia*.

peared, as a consequence of disease or external injury.* The point, however, which excited most discussion in former times, was, whether individuals, born without any appearance of testes, but who in other respects have the activity and strength that belong to the male sex, are to be considered impotent. It is generally believed not; since it has been well ascertained, that in many instances these organs have not descended from the abdomen, and yet the individual has exhibited every proof of virility. Considerable attention should be directed to the external appearance of the person—his muscular system—the strength of his voice, the presence of the beard, &c. The medical examiner should also examine whether any cicatrix is to be found in the scrotum, indicating castration; or whether, in the room of the testes, there do not exist some hard knots or lumps, proving the existence of former disease. If these are wanting, and the general appearance is virile, we are not justified in considering the individual as impotent.

A different opinion, however, prevailed in former times. Pope Sextus the Fifth declared in 1587, in a letter to his nuncio in Spain, that all those who were destitute of them, should be unmarried; and Philip II. accordingly executed this order, which affected many in that kingdom. The parliament of Paris, also, in 1665, decreed, that they should be apparent, in order to permit a person to contract marriage.* These, however, are the relics of barbarous ages. Unquestionable facts and anatomical examinations have proved that the conformation in question may be present, without any injury to the generative power.

* Foderè, vol. 1, p. 369. He observes, that he has witnessed several cases of this kind in deserters, condemned to labour on the canal at Arles. Larrey also states, that many soldiers of the army of Egypt were attacked with a similar complaint. The testes lost their sensibility, became soft, and diminished in size until they were no larger than a white French bean. No venereal disease had preceded these attacks. When both testes were affected with this atrophy, the patient became impotent—the beard grew thin, and the intellect weak. He attributes it to the use of the brandy of dates. Larrey, vol. 1, p. 260.

† Mahon, vol. 1, p. 55, 57.

Rolfinck relates the case of an individual distinguished for libertinism, who was executed for some crime. He was, after death, consigned to the dissecting knife; and on examination, the testes were found in the abdomen.* The parents of a young man in a similar situation, consulted the physician as to the propriety of allowing him to marry. He recommended it; and a numerous offspring demonstrated the propriety of his advice.†

I may also add, in this place, a cause of impotence, concerning which there has existed a considerable diversity of opinion; and that is, the loss of one of the testicles only. If this deprivation be compensated by the healthy size and condition of the other, we have no reason to dread the effects. This actually occurs in some cases of cynanche parotidea, where there has been a translation of the complaint from the neck to the testes. Dr. Robert Hamilton, in one of the best histories that we have of that disease, mentions, that when it was epidemic at Norfolk in England, a patient was seized with swelling of both the testicles. One of them wasted away, until nothing but its coats were left. This occurred in 1762, and in 1769 he had a child, and in 1772 another; both of whom were healthy.‡ Mahon also mentions that he was acquainted with a young man, in whom one of these organs gradually diminished and withered away, whilst the other increased proportionably in size; and after this had taken place, he became the father of five children.¶ If, however, the remaining testicle be small and extenuated, or have become scirrhus or carcinomatous, or even if the epididymis be tumefied and hard, we have just reason to dread the presence of impotence.

* Mæbius, quoted by Mahon ut antea.

† Mahon, vol. 1, p. 54. It is stated by Bichat, on the authority of Roux, that very commonly among the inhabitants of Hungary, the testes do not descend till some months, or even years after birth. Brewster's Edinburgh Encyclop. Art. Anatomy, vol. 1, p. 825.

‡ Transactions of the Royal Society of Edinburgh. vol. 2, Art. 9.

¶ Mahon. vol 1, p. 52

To the above, Foderè adds the following, which may possibly in some cases produce the consequence in question, viz. congenital tumours of a large size; such, for example, as scrotal hernia. This, he supposes may produce a hardness of the parts, and prevent a secretion of the seminal fluid, by its continued pressure on the spermatic vessels.* The medical college of Western Prussia declared a voluminous and irreducible hernia, a sufficient cause of divorce.†

Among the curable causes of impotence may be enumerated the following: An atony of the parts, arising sometimes from local disease or external injury,‡ and at others from masturbation—a retraction of the penis, originating from stone in the bladder, or some other urinary disease—a natural phymosis, which sometimes confines the glans penis in such a manner as to prevent the emission of the semen—and lastly, a mal-conformation as to the place of the aperture of the urethral canal. If this be not too far back, if it be only covered with a membrane, and not obstructed to a great depth, we have reason to hope that modern surgery may remove the difficulty.

The third class of causes, the accidental or temporary ones, is the most important, since they are frequently the subject of legal investigation. They are those which affect an individual during his marriage, and of course, have to be considered in cases of contested paternity. The law presumes, that the husband is the father of every child conceived during the term of wedlock, yet it allows an investigation as to the chastity of the female. That such is law in our own and other countries, the following extracts will prove: “In the case of *Lomax versus Holmden*, tried before the court of King’s bench in England, the ques-

* Foderè, vol. 1, p. 372.

† Metzger, p. 494. We should not forget that extreme youth is an absolute cause. It has been decided, as far back as the reign of Henry the Sixth in England, that the issue was a bastard, where the husband was within the age of fourteen. See *The King v. Luffe*, 8th East’s Reports, p. 205.

‡ Dr Francis mentions, that he has observed the abuse of mercury, and the excessive application of lead injections in gonorrhœa, to cause impotence. New-York Med. and Phys. Journal, vol. 2, p. 12.

tion at the trial was, whether the plaintiff was the son and heir of Caleb Lomax, Esq. deceased, and this depended on the question of his mother's marriage. And that being fully proved, and evidence given of the husband's being frequently at London, where the mother lived, access was of course presumed. The defendants were then admitted to give evidence of his inability from a bad habit of body. But their evidence, *not going to an impossibility, but an improbability only*, this was not thought sufficient, and there was a verdict for the plaintiff.*

The French or Napoleon code, although it does not permit a husband to disavow his child, by alledging his *natural impotence*, yet contains a regulation, which, in its effects, operates similarly to the principle contained in the English case above quoted. The 312th article says, that the infant conceived during marriage, has the husband for its father, but he may notwithstanding disavow it, if he can prove, that from the 300th to the 180th day before its birth, there was, either on account of absence, or *from the effect of some accident*, a physical impossibility of cohabiting with his wife.†

* Strange's Reports, vol. 2, p. 940. I am indebted to Dr. Male for the reference to this case. There seems latterly to have been some variation in the rule of law. "Non access is the only ground of disputing the legitimacy in England; but the rule of evidence, in this respect, has been of late materially altered by the opinions of the judges in the Banbury Peerage, who have, it is conceived, introduced an *anomalous* division respecting the evidence of access, dividing it into *access* and *generative access*; so that if this distinction be hereafter recognized, much uncertainty may be introduced respecting the title and accession to property, and a new and difficult subject will demand the attention of the medical student." Brande's Journal, 3, p. 44. I have not been able to obtain a very distinct account of the case above cited, at least in its bearing on the subject now considering; but the following may tend to elucidate the subject: "By the opinion of the judges in the case of the Banbury claim of peerage, it was held, that where the husband and wife are not proved to be impotent, and have had opportunity of access to each other during the period in which a child could be begotten and born in the course of nature, the presumption of legitimacy, arising from the birth of the child during wedlock, may be rebutted by circumstances inducing a contrary presumption; and the fact of a non-access (that is, the non-existence of sexual intercourse,) as well as the fact of impotency, may always be lawfully proved by means of such legal evidence, as is strictly admissible in every other case, where a physical fact is to be proved." Phillips' Law of Evidence, p. 113.

† Foderè, vol. 1, p. 375.

In discussing this subject, it will readily occur, that there is a class of diseases, during the progress of which, virility may be preserved, while there is another in which it is destroyed. It is not possible, nor indeed would it be proper, to state these except in a general way, since it is difficult to foresee what may hereafter be adduced in contested cases, as a cause of impotence. We shall therefore be understood to mention the diseases, as causing a probability on one or the other side, and not as positive proof.

The diseases that are considered compatible with connection, are those which do not affect the head and sensitive system primarily, and are not accompanied with great debility. Inflammatory and catarrhal fever are of this class. So also in asthma and the early stages of phthisis pulmonalis, the power is preserved. Some diseases appear to stimulate the generative organs, and others, although accompanied with pain, are said to excite desire. Of the first, may be named a calculus in the kidneys or bladder, and to the last, belong gout and rheumatism.

A man named Aurelius Lingius, aged sixty years, had been affected, during the two last years of his life, with occasional attacks of fever, accompanied with gouty pains, which at intervals made him extremely ill. For the space of two months, however, he appeared on the recovery; when being seized with a fever and ague, he died. His wife declared herself pregnant, and six months after his death, was delivered of a healthy child. Its legitimacy was contested on the ground that the husband, before his last illness, had been incapable; and this opinion was corroborated by his own confession to the physician attending him. His wife allowed the truth of this statement; but asserted that his powers had returned some time before his decease. In this state of the case, Zacchias was consulted; and he decided in favour of the chastity of the wife, for the following reasons: Aurelius had been twice married, and by each wife has had several children. The disease under

which he laboured was a heating one, and his powers were probably perfect during the period of convalescence. His age does not prevent the possibility of his producing pregnancy in the female. Symptoms of this were present during his life-time; and although he was known to be extremely jealous, yet his affection remained undiminished towards her. And finally, the intervals of ease that accompany articular pains, together with the fact that she always reposed in the same bed with him, were, in the mind of Zacchias, conclusive arguments. The judges decided in favour of the female.*

In connection with the facts already stated, it may be proper to add a circumstance suggested by the author just quoted. He deems it possible that certain diseases may so change the state of the system, as to produce an alteration in the generative power. He quotes the testimony of Avenzoës, who had no children during the whole period of youth, but became a father shortly after recovering from a violent fever. And also the case, which came under his own observation, of an artificer, who lived twenty-four years with his wife without issue: shortly after his convalescence from illness, he became a father, and afterwards had many children.†

The diseases which we may rationally suppose will prevent cohabitation, are the following: A mutilation, or severe wounds of the sexual organs—carcinoma of the testicles or penis—gangrene of the lower extremities—immoderate evacuations of blood or bile, or of the fæces—scorbutic cachexia—marasmus—peripneumony and hydrothorax—anasarca in its perfect state, particularly if accompanied with an infiltration into the sexual organs—nervous and malignant fevers, particularly if they affect the brain, and are accompanied with great debility and loss of memory—all affections of the head and spinal marrow, whe-

* Zacchias. *Quest. Med. Legal. Consilium*, 23.

† Zacchias, vol. 1, p. 271.

ther from a fall, blow, wound or poison;* or from external causes, as apoplexy, palsy, or other comatose diseases. If the infant is conceived whilst the husband has been known to have laboured under either of these maladies, the presumption is certainly against its legitimacy. So also, if he be affected with leprosy, venereal ozæna, severe cutaneous diseases, or insanity, we may reasonably doubt the fact of cohabitation, from the fear that we may suppose the female has experienced, lest she should be contaminated, or from the dread that she has entertained of having communication with the individual.

We come now to the consideration of impotence in the female. And here it is to be observed, that even if the causes of it be removed, yet sterility, or an inability to conceive, may still exist. It will, therefore, be proper to notice the causes of impotence and sterility in succession. They may each be divided into incurable and curable.

The incurable causes of impotence are, 1. An obliteration or thickening of the sexual organs, so as to prevent any introduction; and this may depend either on the soft or the hard parts. To the former belongs a mal-conformation of the pelvis, or extensive exostosis. I shall, however, hereafter notice the disease usually denominated *mollities ossium*, which frequently produces the most shocking deformity; and where, notwithstanding this, patients have frequently conceived. The imminent danger, both to mother and child, that is present, will be considered when treating of the cæsarean operation. At present we barely remark, that there may be such a curvature of the spine, and distortion of the bones of the pelvis, as to prevent cohabitation.

The vagina and womb have also been closed with a dense fleshy substance. Morgagni mentions cases in

* Foderè mentions the case of a person, aged forty, who laboured under temporary impotence during the space of six months, from exposure to charcoal vapours. This state of the system was left after the recovery from the immediate danger. Vol. 1, p. 382.

which there was a continuity of it, without any aperture. A similar instance is stated by Dr. Mott, where an operation led to no useful result ; and he advances the opinion that the female is destitute both of vagina and uterus. She never menstruates, but every month is seized for a day or two with active diarrhœa.*

Foderè also relates the following case from the *Causes Célèbres*. In 1722, a young woman aged twenty-five, in good health, was married at Paris. Six years elapsed without consummating the nuptials ; at the end of which, she consented to be visited by a midwife. This person declared that she could find none of the sexual organs, and that their place was occupied by a solid body. The female stated at this time, that though in good health, she had never been subject to the menses. A surgeon named Dejours was afterwards called in ; and on examination, he supposed that an incision into this solid mass might remedy the inconvenience ; and he accordingly performed it in 1734, but without success ; as after cutting down two inches, he still found the mass in equal quantity, and the hope of its being a superficial obstruction was destroyed. He contented himself with keeping the wound open, and an aperture was thus preserved. In the year 1742, the husband applied to the court to annul the marriage. Levret and Sau-met, on being consulted, stated that they had found an aperture of two or three inches in length ; that the cicatrix of the former operation still remained ; and that either through fear, or the prudence of the surgeon, it had not been sufficiently extensive to remove the obstacles. Ferrin, Petit, and Morand, on the other hand, deposed, that the operation had been properly performed, and that it was not probable that the parts necessary for generation had ever been present, either before or after marriage. The court, however, refused to annul the connection, from an idea that a cure was practicable. The female died at

* New-York Med. and Phys. Journal, vol. 2, p. 19. A case, probably of the same nature, is mentioned in the Lond. Med. Repository, vol. 8, p. 347.

Lyons about ten years after ; and on dissection, the vagina and uterus were found to constitute one solid mass, without any cavity in either.*

2. Another incurable cause, both of impotency and sterility, is a natural or fistulous communication of the vagina with the bladder or rectum. Foderè mentions cases of this nature, where the female menstruated by the rectum, and every possible remedy failed of success. The vagina was extremely contracted.

3. A prolapsus or retroversion of the uterus, or a prolapsus of the vagina. These are of course curable during their first stages, but instances have occurred where they are of long standing and cannot be reduced, since the introduction of the fingers causes the most vivid pain. 4. A cancer of the vagina or uterus, from the pain that accompanies it, may be considered as an absolute cause.

The curable causes are, 1. A dense substance covering the orifice of the vagina. Parè, Ruysch, Fabricius, and many others, relate cases of this kind, in some of which the membrane, which is generally the hymen, was so strong, that the menstrual blood was accumulated behind it in large quantities. Foderè quotes a case from Fabricius, where the husband demanded a dissolution of the marriage, from the impossibility of having perfect connection. The female, however, declared herself pregnant, and by an incision into the membrane, the obstacle was removed, and the pregnancy completed at the time indicated.† Dr. Physick is also stated to have operated with success in a case where the vagina was entirely closed up to a considerable distance within the os externum.§ 2. An extreme narrowness of the vagina. Should pregnancy intervene, no apprehension need be entertained of the result in this case, as it has been repeatedly observed, that a dilatation gradually takes place be-

* Foderè, vol. 1, p. 385.

† In the New-England Journal, vol. 9, p. 161, is a case related on the authority of M. Lessere, which evidently proves the position laid down in the text.

‡ Foderè, 1. 389.

§ Dorsey's Surgery, vol. 2, p. 368.

fore the period of delivery. It may be remarked, however, that this occurs more readily in young females, than in those of advanced years. 3. Independent of the natural narrowness just mentioned, there is a similar affection that occasionally originates from accidental causes, such as tumours and callosities, cicatrices remaining after the cure of ulcers, or from lacerations after difficult labour. A dilatation of these may be made, according to the rules of modern surgery.* 4. We may add, long continued hæmorrhage, recent prolapsus of the uterus or vagina, and even protracted fluor albus, to the above. They prevent connection from the pain that occurs, or the diseased state that is present.

The causes of sterility, of an incurable nature, and sensible to the sight or touch during life, may be stated thus: A schirrous or cartilaginous uterus—stricture in the cavity of that organ†—a polypus in the interior of the uterus—enlarged and scirrhus ovaria. The want of the uterus, should that occur, is seldom known till after death.‡

The causes which may be curable, are, an obliquity in the position of the uterus—too great irritability of that organ—excessive menstruation—leucorrhœa—

* In the *Medico-Chirug. Trans.* vol. 11, p. 445, a case is related of a negro in Jamaica, in whom there was a complete adhesion of the labia, and she asserted that it was owing to an operation performed in Africa, for the purpose of preserving the chastity of the female.

† Baillie's *Morbid Anatomy*, p. 371. "Slight inflammation (he observes) may induce this, and the obliteration particularly occurs in that part where the cavity is narrowest."

‡ See *Mem. Med. Soc. Lon.* vol. 4, p. 94. (The uterus, on dissection, was found wanting.) See also Burns' *Midwifery*, chap. 4, note 47, for references. A case was lately read before a medical society in Berlin, by Dr. Stein, of a married female, aged 24 years, well formed, slender and delicate, with full breasts, whose vagina was found imperforated; and on performing the necessary operation, no uterus could be discovered, but its place was supplied by a soft mass of cellular tissue. She had never menstruated, although there was a regular return of the orgasm experienced at the catamenial periods. The author infers that it is the ovaria, and not the uterus, which, by their influence, give to the woman her characteristics, in respect to form and manners, and this opinion is supported by some cases, which I shall hereafter quote. (See *Annals of Philosophy*, vol. 16, p. 114.) The 46th letter of Morgagni (*De Caus. and Sedib.*) is highly worthy of examination on the subject of sterility.

retention of the menses.* This last, however, is not by any means a certain cause of sterility, as women have become pregnant without the menses ever occurring.

In concluding this subject, it is proper to add, that there are many cases of constitutional sterility, which we cannot explain. These, however, are never a subject of judicial inquiry.†

In this country, the English law, as already cited, is in force, and the presence of impotence before marriage, is a sufficient cause for dissolving that connection. Applications have also been repeatedly made to the legislature of the state of New-York for a di-

* Foderè and Mahon mention dropsy (hydatids) and tympany of the womb as causes. Denman, however, observes, that according to his experience, they have not prevented conception. (Francis' Denman, p. 148 and 149.)

† I have already referred to Dr. Duncan's Essay; and will only add, that it contains a notice of mal-conformations in the genital organs of both sexes, as connected with deficiency of the urinary bladder. Copious references are given to all preceding cases on record. See Edin. Med. and Surg. Journal, vol. 1, p. 132. Cases of female mal-conformations are also contained in Edin. Med. and Surg. Journal, vol. 1, p. 39, by Mr. Coates; vol. 1, p. 128, by Astley Cooper, Esq.; and vol. 7, p. 23, by Mr. Conquest. It seems, from the case of the Cornish woman related in the Philosophical Transactions by Dr. Huxham, that females are capable of being impregnated, notwithstanding a serious mal-conformation of the urinary organs. Vol. 32, p. 408: as also vol. 20, p. 56.—As I have only noticed, in the text, those causes of sterility which are sensible to the sight or touch, it may be proper to add the following; which is, strictly speaking, a case presenting every probability of marriage proving sterile, but yet not sufficient, until dissection verifies it, to prove its certainty. It is taken from the Philos. Transactions, 1805, part 2, and related by Mr. Charles Pears, F.L.S. The woman died at the age of twenty-nine. Her stature was about four feet six inches, having ceased to grow at ten years of age. She never menstruated; her breasts and nipples never enlarged more than in the male subject; there was no appearance of hair on the pubes, and she never shewed any passion for the male sex. On dissection, the os tincæ and uterus were found of the usual form, but had never increased beyond their size in the infant state; the passage into the uterus through the cervix, was oblique; the cavity of the uterus of the common shape, and the fallopian tubes were pervious to the fimbriæ; the coats of the uterus were membranous; and the ovaria were so indistinct, as rather to shew the rudiments which ought to have formed them, than any part of their natural structure. Edin. Med. and Surg. Journal, vol. 3, p. 105.—Probably the only case in which the ovaria have been removed in the human subject, is that related by Mr. Pott. See his works, vol. 2, p. 210. They were removed in a case of inguinal hernia, by a surgical operation. Before this period, the female (aged twenty-three) was stout, large-breasted, and menstruated regularly; afterwards, although she enjoyed good health, she became thinner, her breasts were gone, and she never menstruated.

voice, on the ground of impotence supervening after marriage, but they have been uniformly rejected.†

† There is one case decided during the period when New-York was a colony, which, from its singularity, deserves mention. I am indebted for it to the kindness of John V. N. Yates, Esq. secretary of state ; and as it has never been published, I prefer giving the proceedings at full length, as copied from the records.

“ Nicholas W——, of Oysterbay, on behalf of Rebekah his daughter, wife of Eleazer L——, of Huntington, made complaint unto me of the uncomfortable condition wherein his said daughter hath, for divers years past, lived with her said husband ; and there having been formerly several complaints made, both on the part of the relations of the husband, as well as those of the wife, suggesting some notorious fault or impediment on the one side or the other, which hitherto hath not been fully or clearly made appear, so that mutual discords and differences do still continue. To the end a fair composure of the same may be affected, or some other lawful course taken therein, I have, by and with the advice and consent of my council, thought fit to ordain and appoint, and by these presents do ordain and appoint, that Eleazer L—— and Rebekah his wife do appear now in this city, upon Wednesday the fourth of May next, before a special court appointed to examine into and determine the matter in difference between them ; and all persons concerned, or that can give in evidence on either part, are hereby required to make their appearance before the said court, for the better clearing of the truth, so that the controversy may be decided according to law and good conscience. Given under my hand at Fort James in New-York, this 1st day of April, 1670.

“ FRANCIS LOVELACE, Governor.”

Volume marked “ Court of Assize, 1665 to 1672”—vol. 2, p. 139.

A Commission, &c.

“ Whereas complaint hath been made unto me by Nicholas W——, on the behalf of Rebekah his daughter, against Eleazer L——, her husband, and also by the said Rebekah against him the said Eleazer, that having been joined in matrimony for the space of seven years and a half or thereabouts, he the said husband hath not performed conjugal rights unto his wife, but on the contrary hath caused her to lead a very uncomfortable life with him ; and the said father and daughter, upon supposition of impotency and insufficiency in the said Eleazer L——, having sued for a divorce, the hearing and examination into which matter I do not judge meet should come on before a public court, I have therefore thought fit to nominate and appoint, and by these presents do hereby nominate and appoint Thomas Lovelace, Esq. Mr. Samuel Maverick, Mr. Matthias Nicolls, Capt. John Manning, and Mr. Humphrey Davenport, to be commissioners, to meet at some convenient place this afternoon, then and there to hear and examine into this matter in difference between the said Eleazer L—— and Rebekah his wife. To which end, you are to call both parties before you, or whosoever also can give evidence or testimony in the matter ; to whom ye may administer an oath, for the better clearing of the truth ; which oath you are hereby empowered to give ; as also to employ any other person or persons skilful in such matters, to make inquiry into the defect and impediments alleged ; whereupon you are to give judgment, and render an account, that I may make some final determination thereupon. Given under my hand and seal, this sixth day of May, in the 22d year of his majesty's reign, A. D. 1670.”—Ibid. p. 175.

A Divorce granted to Rebekah W——, from Eleazer L——.

“ Whereas Nicholas W—— of Oysterbay, on the behalf of his daughter Rebekah, the wife of Eleazer L——, and the said Rebekah for herself,

CHAPTER IV.

DOUBTFUL SEX.

Denial of the existence of hermaphrodites in the ancient sense of the term.

Notice of the various mal-conformations that have been observed. 1. Individuals exhibiting a mixture of the sexual organs, but neither of them entire. 2. Males with unusual formations of the urinary and generative organs. 3. Females with unusual formations of the generative organs. Ancient laws concerning hermaphrodites—English common law concerning them.

The ancients have several fables founded on the idea of the union of the qualities of the male and female in the same individual. One of the personages who was supposed to be thus endowed, was named *Hermaphroditus*; and from him the term *hermaphrodite* has come into general use, as applicable to this class of beings. Although formerly credited, yet it is now agreed that no such individual of the human

did make their complaint unto me against the said Eleazer L——, her husband; that she having been his reputed wife for the space of seven years and a half, she hath not in all that time received any due benevolence from her said husband, according to the true intention of matrimony, the great end of which is not only to extinguish those fleshly desires and appetites incident to human nature, but likewise for the well ordering and confirmation of the right of meum and tuum, to be devolved upon the posterity lawfully begotten betwixt man and wife, according to the laws of the land and practice of all Christian nations, in that case provided; and did therefore sue for a divorce. Whereupon, having appointed commissioners to call both parties before them, and strictly to examine into the affair, and to make report of their judgment thereupon; the which, after serious inquiry made by them, with the advice of chirurgeons well skilled, and sober matrons, who privily examined both the man and the woman, they made report of their judgment and opinion, that the defect was in the husband, and not in the wife; and there was sufficient ground for a divorce. All which being afterwards represented to my council, and they having declared themselves in the same opinion. For the reasons afore specified, the pretended marriage between the said Eleazer L—— and Rebekah W—— is hereby adjudged and declared to be void, null and invalid, together with all the consequences thereof; and the said Rebekah W—— is hereby acquitted, made free, and divorced from all pretences of marriage, or matrimonial ties and obligations between her and the said Eleazer; and the said Rebekah hath likewise free liberty to dispose of herself in lawful marriage with any other person, as if the ties and obligations between her and the said Eleazer had never been. Given under my hand, and sealed with the seal of the province, this 22d day of October, in the 22d year of his majesty's reign, A. D. 1670."—Ib. p. 260.

species has ever existed ; but it is equally well established, that many cases of extraordinary mal-conformations have occurred. I conceive that the most useful notice of this subject, will be, to relate the more remarkable cases according to the arrangement usually adopted by writers of the present day.

Considering, therefore, the subject of proper hermaphrodites, or those endowed with the sexual organs of both sexes entire, and capable of performing the generative functions, as fabulous, we shall examine those to whom the above term is at present commonly applied, under three classes.

1. *Individuals exhibiting a mixture of the sexual organs, but neither of them entire.* Examples of this class are rare ; and even these, when closely examined, show the predominance of one or other sex. Dr. Baillie mentions a case which was communicated to him by Dr. Storer of Nottingham. "The person," he observes, "bears a woman's name, and wears the dress of a woman. She has a remarkable masculine look, with plain features, but no beard. She has never menstruated ; and on this account, she was desired by the lady with whom she lived as a servant, to become an out patient in the Nottingham hospital. At this time she was 24 years of age, and had not been sensible of any bad health, but only came to the hospital in order to comply with the wishes of her mistress. Various medicines were tried without effect ; which led to the suspicion of the hymen being imperforated, and the menstrual blood having accumulated behind it. She was, therefore, examined by Mr. Wright, one of the surgeons to the hospital, and by Dr. Storer. The vagina was found to terminate in a cul-de-sac, two inches from the external surface of the labia. The head of the clitoris, and the external orifice of the meatus urinæ, appeared as in the natural structure of a female ; but there were no nymphæ. The labia were more pendulous than usual, and contained each of them a body resembling a testicle of a moderate size, with its cord. The mammæ resem-

bled those of a woman. The person had no desire or partiality whatever for either sex.”*

The Memoirs of the Academy of Dijon contain the following case, communicated by M. Maret. Hubert J. Pierre died at the hospital in October, 1767, aged 17 years. Particular circumstances had led to a suspicion of his sex; and these induced an examination after death.

His general appearance was more delicate than that of the male; and there was no down on his chin or upper lip. The breasts were of the middle size, and had each a large areola. The bust resembled a female; but the lower part of the body had not that enlargement about the hips, which is usually observed at his age. On examining the sexual organs, a body four inches in length, and of proportionate thickness, resembling the penis, was found at the symphysis pubis. It was furnished with a glans to cover the prepuce; and at its extremity, where the urethra usually opens, was an indentation. On raising this penis, it was observed to cover a large fissure, the sides of which resembled the labia of a female. At the left side of this opening, there was a small round body like a testicle, but none on the right. However, if the abdomen was pressed, a similar body descended through the ring. When the labia were pushed aside, spongy bodies resembling the nymphæ were seen; and between these, and at their upper part, the urethra opened as in the female, while below these was a very narrow aperture, covered with a semi-lunar membrane. A small excrescence, placed laterally, and having the appearance of a caruncula myrtiformis, completed the similarity of this fissure to the orifice of the vagina. On further examination, the penis was found to be imperforate; the testicle of the left side had its spermatic vessels and vas deferens, which led to the vesiculæ seminales. By making an incision into the semi-lunar membrane, a canal

* Morbid Anatomy, 3d ed. p. 410

one inch in length, and half an inch in diameter, was seen, situated between the rectum and bladder. Its identity with a vagina was, however, destroyed, by finding at its lower part, the verumontanum and the seminal orifices, from which, by pressure, a fluid, resembling semen in all its properties, flowed. The most astonishing discovery was, however, yet to be made. The supposed vagina, together with the bladder and testicles was removed. An incision was made down to the body noticed on the right side. It was contained in a sac, filled with a limpid and red-coloured liquor. From its upper part on the right side, a fallopian tube passed off, which was prepared to embrace an ovarium placed near it. It seemed thus proved that the body in question was a uterus, though a very small and imperfect one; and on blowing into it, air passed through to the tube.*

Giraud dissected a subject at the Hotel Dieu, who, during life, had been received in society as a woman, and was connected by a voluntary association with a man, who had for a long time performed the duties of a husband towards her. The bust had a masculine appearance, the chin was covered with firm hairs, very analogous to a beard, the neck was thick, the chest broad, the bosom slightly swollen, and the nipples exactly like those of a man. The lower half of the body presented a contrast to these characters. The soft and delicate contours of the lower limbs, the rounded hips, the broad pelvis, and the greater separation of the thighs, approximated decidedly to the female form. An imperforate penis, two testicles, and an appearance of vulva, were the external generative organs. The testes were well formed, the vesiculæ seminales imperfect, and the urethra opened at the cul-de-sac, which represented the vagina.†

The case of the child examined by Professor Ackermann of Jena, probably belongs to this division.

* Mahon, vol. 1, p. 100.

† Rees' Cyclopædia, art. Generation. The case is quoted from the Journal de Medecine, par Sedillot.

It was born at Mentz on the 14th of June, 1803, and died on the 25th of the month following. Dr. Ackermann viewed the body during life, and also dissected it after death. The penis was little more than an inch long, the glans was distinct about one third of its whole length, but imperforated ; there was, however, a depression where the urethra should have opened. On raising this cliteroid penis, as he calls it, an opening was observed, which was the orifice of a canal, one inch in length. The uterus and urethra opened into the posterior part of this canal, and the testicles, with their tunicae vaginales, were found in the labia. As to the internal organs, the urinary bladder occupied its usual place ; one of the testicles had descended into the scrotum, and the other had advanced no farther than the groin ; both were perfect, and had their usual appendages complete. In the place usually occupied by the female uterus, there was found an organ closely resembling it. Its figure was pyriform, and it opened by a round orifice into the *vagina urethralis*, as he styles the canal, a little before the orifice of the urethra. The vasa deferentia penetrated the substance of the uterus, at the points where the fallopian tubes are usually placed, but without opening here, passed on, and at length terminated by very small orifices in the *vagina urethralis*.*

Other cases are mentioned by various authors, but the similarity between them is so great, as to render a farther detail unnecessary. The examples now given, show the greatest deviations from the perfect structure that have been observed. And it will lead to clearer views concerning them, if we adopt the opinions of the reviewer of Ackermann, in the journal already quoted. "In the two sexes, there are organs which correspond to each other, and which may be called analogous organs, the penis to the clitoris, the scrotum to the labia, the testes to the ovaria, and the prostrate to the uterus ; and it farther appears, that

* Edinburgh Med. and Surg. Journal, vol. 3, p. 202. Review of "*Infantis Androgyni Historia et Ichnographia*," &c. Auctore I. F. Ackermann.

of these analogous organs, no two were ever found together in the same individual. *No monster has been described, having both a penis and clitoris, nor with a testis and ovarium of the same side, we may venture to say, with testes and ovaria, nor one having a prostrate and uterus.*" This distinction will invalidate the account given by Maret, so far as it relates to the presence of an ovarium and a fallopian tube. But I suggest whether it is not probable that the organ in question was a testicle, and its appendages malformed. The idea of our author is also no doubt correct, that in repeated instances the part deemed to be a uterus, is a *mal-formed prostrate*. "The proof rises almost to certainty, when we recollect that the prostrate is the only male organ not accounted for in the hermaphrodite."*

If these views be adopted, and they are certainly consonant with the present state of anatomical science, it will follow as a result, that beings of this class are to be considered as males. It need hardly be added that they are impotent.

2. *Male individuals with unusual formations of the urinary and generative organs, (androgyni.)* "The ambiguity in these cases depends commonly on the testes being contained in separate parallel folds of the skin; the penis being imperforate, and the urethra opening in the perinæum, on the surface of a blind aperture, having a red and tender appearance, and easily mistaken for the vagina. In such an individual, the penis being imperforate, and probably smaller than usual, is considered as a large clitoris; the folds of the skin holding the testes, very much resemble the female labia, and the red slit behind which the urethra ends, is tolerably analogous to the vagina."† A marine, answering perfectly to this description, was sent to the hospital at Toulon in 1799, as an hermaphrodite. He was about twenty years of age, with little beard, and breasts resembling those of a girl at sixteen. A discharge from the service was procured

* Edin. Med. and Surg. Journal, vol. 3, p. 208.

† Rees' Cyclopaedia, article *Generation*.

for him.* Individuals of this class, appear to have the testes and vesiculæ seminales perfect, but they must evidently be impotent from the imperforation of the penis, and the opening of the ejaculatory ducts near the perinæum. Here the semen is of course expelled.

Deviations less marked, have also been observed, and among others, a confinement of the penis to the scrotum, by a particular formation of the integuments, has occasioned persons to be reputed hermaphrodites. In these, the urine passes in the direction downwards, and the confinement of the organ will not allow of its performing the sexual functions. Mr. Brand relates, that being consulted in 1779, on occasion of some complaint in the groin about a child, seven years of age, he found a vicious structure of the sexual organs, consisting in the presence of such an unnatural integument. This child had been baptized and brought up a girl, but it was evident to him erroneously, as the male organs were present. By a slight incision, he liberated the restricted parts, and proved to the parents, that they had mistaken a boy for a girl.†

Lastly, males are supposed to be hermaphrodites, when the urinary bladder is deficient, together with the lower and anterior portion of the abdominal muscles and integuments, while a red and sensible mass of an irregular and fungous-like substance, with the ureters opening on it, is placed at the lower part of the abdomen. I have already referred to the elaborate essay of Dr. Duncan, jun. on this subject. He has collected a great number of cases, and from his

* Foderè, vol. 1, p. 357. An instructive case, accompanied with a plate is related by J. S. Soden, surgeon at Coventry. The individual resided at that place, and wore the attire of a female. The beard was strong, the breasts flat, and the hips straight. The genital organs generally resembled the above description. The scrotum contained the testicles, but it was divided, and resembled the labia. The urine was evacuated at the perinæum. Edin. Med. and Surg. Journal, vol. 4, p. 32. There certainly can be no doubt of this person being a male.

† Brand, quoted in Brewster's Edinburgh Encyclopedia, article *Hermaphrodites*.

deductions, it appears that important alterations in the generative organs are generally observed, in consequence of this deformity. The urethra is deficient, and the penis consequently imperforate. It is also very short—never exceeding two inches, even in the adult. The vesiculæ seminales open near the fungous mass above mentioned, or in the urethra, or in a small tubercle at the root of the penis. The testicles are generally natural, either contained in the scrotum, or they have not descended. The sexual appetite in some of these individuals has been weak; in others strong; in others altogether wanting. They are not capable of procreating the species, in consequence of the shortness and imperforation of the penis, and the seminal ducts opening externally.*

3. *Females with unusual formation of the generative organs, (androgynæ.)* An enlargement of the clitoris is probably the most common cause that has led to mistakes concerning this sex. It seldom occurs in Europe, but is quite frequent in warm climates, in-somuch that excision of it is said to be sometimes practised.

Sir Everard Home relates an instance in a Mandingo negress, aged 24 years. Her breasts were very flat; her voice was rough, and her countenance masculine. The clitoris was two inches long, and in thickness resembled a common-sized thumb; when viewed at some distance, the end appeared round, and of a red colour; but on a closer inspection, was found to be more pointed than that of a penis—not flat be-

* Edin. Med. and Surg. Journal, vol. I, p. 54 to 58. The following is an exception to the general rule, unless we suppose the mal-conformation to have been slight, and the prevalent opinion to have been drawn from the appearance. "In the year preceding, (1459) there was a bairn, which had the kinds of male and female, called in our language, a *searclit*, in whom man's nature did prevail: But because his disposition and portraiture of body represented a woman, in a man's house of Linlithgow, he associated in bedding with the goodman's daughter of the house, and made her to conceive a child, which being divulgate through the country, and the matrons understanding this damsel deceived on in this manner, and being offended that the monstrous beast should set himself forth as a woman, being a very man, they got him accused and convicted in judgment for to be burnt quick, for this shameful behaviour" (Piscottie's History of Scotland. Edin. 1778. p. 104.

low, and having neither prepuce nor perforation. When handled, it became half erected, and was then three inches long, and much larger than before; and on voiding her urine, she was obliged to lift it up, as it completely covered the orifice of the urethra. The other parts of the female organs were found to be in a natural state.* It is proper to observe in this place, that in new-born children the clitoris is proportionably very large.

In 1814, a female named Mary Magdalen Lefort, excited great attention in Paris, as a reputed hermaphrodite. She was examined by a committee of the *Faculté de Médecine* of that city, (consisting of Chaussier, Petit-Radel and Beclard;) and from their report, and the remarks of Dr. Granville on it, the following particulars are drawn: She was sixteen years of age. The breasts and upper extremities resembled those of a man. The upper lip and chin were covered with a beard. The clitoris emerged from under the symphysis pubis, and shooting out from between the superior part of the labia, terminated by an imperforated glans. At the root of the clitoris is an opening, through which the urine and menses flowed. On separating the labia, a thick membrane was seen to extend from the one to the other, and from the lower angle formed by their union, upwards as far as the prominent clitoris already described. Dr. Granville supposes that this membranous partition covers the orifice of the vagina, and that an incision made into it would at once expose that cavity in its natural state. The urethra, in the present instance, is produced under the clitoris; and it is this circumstance which constitutes its resemblance to a penis. But the presence of organs essential to the female, such as the uterus and vagina, leave no doubt of her sex.†

A prolapsus of the uterus is another circumstance

* See Home on Hermaphrodites. Philos. Trans. vol. 89, p. 157. Many other cases are said to be collected in the work of Dr. Parsons on Hermaphrodites. See a case by him of a French girl, in Phil. Transactions, vol. 47, p. 142.

† London Med. Repository, vol. 4, p. 414.

which has occasioned females to be deemed hermaphrodites. Margaret Malaure came to Paris in 1693, dressed as a man. She considered herself as possessing the organs of both sexes, and stated that she was able to employ both. Her person was exhibited; and several physicians and surgeons agreed with the common opinion so much, as to give certificates that she was an hermaphrodite. Saviard, an eminent surgeon, was, however, incredulous. He examined her in the presence of his brother practitioners, and found that she had a prolapsus uteri, which he reduced.*

Sir Everard Home mentions a similar case of a French woman, whom he himself examined. She was shown as a curiosity; and in the course of a few weeks, made £400. The prolapsus was evident on inspection. She, however, pretended to have the powers of a male.†

It will readily be observed from the above illustrations, that all the cases of supposed hermaphrodites are referable to the classes now described. They are either males, with some unusual organization or position of the urinary or generative organs; or females with an enlarged clitoris, or prolapsed uterus; or individuals in whom the generative organs have not produced their usual effect in influencing the development of the body. Thus it is evident, that instead of combining the powers of both sexes, they are for the most part incapable of exerting any sexual function.

Yet the prejudices of ancient nations seem to have marked these unfortunate individuals as objects of persecution, and to have subjected them to the operation of the most absurd and cruel laws. Diodorus mentions that they had been burned by the Athenians and Romans. At an early period of Roman history, a law was enacted, that every child of this description should be shut up in a chest, and thrown into the sea; and Livy gives an instance,

* Mahon, vol. 1, p. 96.

† Home ut antea. A case similar to the above is related in Valentini Pandectæ, vol. 1, p. 38.

where, on some difficulty with respect to the sex of a newly born infant, it was directed to be thrown into the sea—*tanquam fœdum et turpe prodigium*.* The Jewish Talmud, we are told, contains many ordinances founded on the apparent predominance of sex.

The canon and civil law have also many enactments concerning them. Among other questions vigorously debated, was that whether they should be allowed to marry; and it appears that they were even not prevented; but if the two sexes were equal, a choice of the object was left. Some learned opinions on this subject may be found in Valentini.†

Hermaphrodites could not, however, be promoted to holy orders, on account of their deformity or monstrosity; nor could they be appointed judges, “because they are ranked with infamous persons, to whom the gates of dignity should not be opened.”

An old French law allowed them great latitude. It enacted that hermaphrodites should choose one sex, and keep to it.‡

These absurd notions and practices have now disappeared; but the subject is, notwithstanding, important on many accounts, as these unusual deviations often render the sex of an individual doubtful, and impose even on professional persons. The decision may be important in deciding the employment in life of an individual, the descent of property, and the judicial decisions concerning impotence or sterility. Thus, Mr. Ferrein, a modern physician, informs us, that he was consulted by the relatives of a young nobleman labouring under a dubious conformation, who, if a male, as was commonly believed by them, would inherit a considerable estate, but to which he could have no right if he belonged to the other sex. The whole external mien resembled that of girls of twelve years of age; the breasts were quite flat, and the

* Livy, 27. 37. Eutropius, 4. 36.

† Novellæ Cas. 10, de matrimonia hermaphroditum

‡ Male, p. 278.

voice masculine. An external sexual organ of small size was present, but without a urethra. In the scrotum was a deep fissure, through which the urine was discharged. He was induced to declare her a female, and that she would consequently lose the expected inheritance. This decision is, however, incorrect, at least if we adopt the views already laid down.

The following circumstances are worthy of notice, in forming our opinions on contested cases. The beard, the hair on various parts of the body—the desires excited by the presence of women—the testes and their cords, and the comparatively greater breadth of the shoulders than of the pelvis and hips, show us that the individual is a man. The smoothness and softness of the body in general—the absence of the beard, and of hair on the body—the menstrual discharge—the want of testes, and the superior breadth of the hips, prove the individual to be a woman.

On proceeding to the sexual organs, a male with a fissure in the perinæum, and an imperforate penis, may be ascertained by the size of the penis; by the different organization of the prepuce from that which covers the clitoris; by the absence of nymphæ and hymen, and probably by the presence of testes. The different relation of the fissure in the perinæum to the penis, from that of the meatus urinarius to the clitoris in the female, will assist the decision; as also the want of power to pass an instrument towards the situation of the uterus.

On the other hand, a female is indicated by the size of the clitoris, and its different shape; by the connection of its prepuce with the nymphæ, and the presence of the latter parts; by the separate opening of the vagina and meatus urinarius, and by the presence of the hymen, and the absence of the testicles.

All these circumstances now enumerated, tend to assist us in viewing the adult; but the difficulty is much increased with new-born children. In such instances, a close and accurate examination is required,

founded on the distinctions already laid down, so far as they are applicable.*

The English common law on this subject, and which of course is binding in this country, is thus laid down by Blackstone and Coke. "A monster having deformity in any part of its body, yet if it hath human shape, may inherit."† And "every heir is either a male or a female, or an hermaphrodite, that is, both male and female. And an hermaphrodite (which is also called androgynus) shall be heir either as a male or female, according to that kind of sex which doth prevail; and accordingly it ought to be baptized."‡ The same rule, he observes, (*hermaphroditam masculo quam feminæ comparatum secundum prævalentiam sexûs incalescentis*,) guides in cases concerning tenant by the curtesy.||

CHAPTER V.

RAPE.

Signs of virginity—opinion of anatomists concerning them. 2. Signs of defloration and rape. Diseases that may be mistaken for the effects of violence. Possibility of consummating a rape. False accusations. Appearances when death has followed violation. 3. Laws of various countries as to the violation of children under ten years of age. Credibility of witnesses in these cases. Laws of various countries concerning rape. Discussion as to the circumstances which constitute the crime in law. 4. Whether the presence of the venereal in the female should invalidate her accusation. Of rape during sleep without the female's knowledge. Of pregnancy following rape. Law on this point.

No case can occur, in which public feeling is more warmly or justly excited, than where an attempt is made to injure or destroy the purity of the female.

* I am much indebted, on this subject, to the articles *Generation* in Rees' Cyclopaedia, and *Hermaphrodites* in Brewster's. The former is an elaborate and able production, from the pen of Mr. William Lawrence.

† Blackstone, 2. 247.

‡ Coke Littleton, 8. a.

|| Do. 29. b.

According to our system of laws, the testimony of the insulted individual is sufficient to condemn the criminal ; yet notwithstanding this correct disposition, it not unfrequently occurs, that the opinion of the physician is required, in order to elucidate various difficulties connected with the accusation. I shall, therefore, follow the plan pursued by all systematic writers on this subject, and commence with a notice of the signs of virginity. A knowledge of these is generally required in cases where children of a tender age have been abused ; and again, they need to be known in those instances, where malicious charges have been made by abandoned females. No remark can be more correct than that of Sir Matthew Hale, concerning this crime : “ It is an accusation,” says he, “ easy to be made and harder to be proved, but harder to be defended by the party accused, though innocent.” The signs of rape will necessarily form the second division ; thirdly, the laws of various countries on that crime, and lastly, an examination of some medico-legal questions connected with the subject.

1. The physical signs of virginity have been the subject of keen discussion among anatomists and physiologists, and none of them has led to greater enquiry, than the *existence of the hymen*. This is understood to be a membrane of a semilunar, or occasionally of a circular form, which closes the orifice of the vagina, leaving however an aperture sufficiently large to permit the menses to pass. A great difference of opinion has existed concerning its presence. Some distinguished physiologists have denied its existence altogether, or in the cases where it is found, consider it a non-natural or morbid occurrence. Among these, may be enumerated, Ambrose Parè, Palfyn, Pinæus, Columbus, Dionis and Buffon. “ Columbus,” says Zacchias, “ did not observe it in more than one or two instances ; and Fallopius, in not more than three females out of thousands whom he dissected.”*—

* Zacchias, vol. 1. 376

“Parè,” says Mahon, “considers the presence of the hymen as contrary to nature; and states, that he searched for it in vain in females from three to twelve years of age.”* Those on the contrary, who, from dissection, have believed in its presence previous to sexual intercourse, or some other cause destroying it, are Fabricius, Albinus, Ruysch, Morgagni, Haller, Diemerbroeck, Heister, Riolan, Sabatier, Cuvier, and I may add Denman. Haller appears to have observed it in persons of all ages.† Cuvier has not only found it in females, but also in mammiferous animals; and thus gives strong evidence of its existence by analogy. Gavard, who appears to have dissected a great number of subjects at the *Hospital de la Salpêtrière*, and also at the dissecting room of Desault, states that he constantly found this membrane in the fœtus, and in children newly born. In others of a more advanced age he also observed it; and in particular in a female fifty years old, whom he was called to sound, he found it untouched; so also, in another, whom he attended with Prof. Dubois.‡

The weight of testimony is thus evidently in favour of the affirmative of this question; and the general sense of the profession is certainly decidedly opposed to considering it as a non-natural appearance. The following circumstances, however, require to be noted, before we form an opinion concerning it as a sign of virginity. *It may be wanting from original mal-conformation, or it may be destroyed by disease or some other cause, and yet the female be pure.* Thus the first menstrual flux, if the aperture be small, may de-

* Mahon, vol 1, p. 118.

† “Ego quidem in omnibus virginibus reperi, quarum aliquæ adultæ erant ætatis, neque unquam desideravi, neque credo a pura virgine abesse. Vidi hymenem bis in fœtu, sexies in recens nata, bis in puella aliquot septimanarum, ter in annua, semel mense 18, semel in bimula, bis in sexenni, semel in decenni, semel in 14 annorum puella, semel in alia 17 annorum, semel in vetula.” *Elementa Physiologiæ*, tom. 7, pars 2, p. 95 and 97. Some satirical remarks by Michaelis on the German anatomists finding this membrane, and the French denying its existence, may be found in his *Commentaries*, vol. 1, p. 482. He quotes also the opinion of Roederer and Wrisberg in favour of its presence, and also of its being a sign of virginity.

‡ Foderè, vol. 4. 339.

stroy it—or an accident, as a fall—or disease, as for example, an ulcer, may totally obliterate it. There have certainly occurred instances, where the pressure of the confined menstrual fluid has produced its destruction. Again, in the place of the hymen, are sometimes found the *carunculæ myrtiformes*. Tolberg, according to Foderè, and also Belloc, have made this observation on dissection. They were, however, round, and without a cicatrix, and in this respect very distinct from the organs usually so termed.* *This membrane may, on the other hand, be present, and yet the female be unchaste ; nay, she may become pregnant without having it destroyed.* Zacchias remarks, that it will not be ruptured when it is thick and hard. A disproportion between the organs, or connection during the presence of menstruation, or fluor albus, are also mentioned by him. Gavard, whom I have already mentioned, found it perfect in a female thirteen years of age, who was labouring under the venereal.†

In those cases where this membrane is found thickened, an operation has often been necessary. Parè relates of a mother who applied to him to examine it ; and on dividing it, it was seen to be of the thickness of parchment.‡ A similar case happened to Ruysch, of a female during labour, in whom he had not only to divide the hymen, but also another non-natural membrane placed farther back. Immediately after the operation, the child was born.|| Baudelocque, Mariceau, Denman, and other writers on midwifery, adduce many instances illustrating the same fact.§

These observations certainly lead us to doubt whether the presence or absence of the hymen deserves much attention ; and I believe the opinion of physio-

* Foderè, vol. 4, p. 343. Belloc, p. 45.

† Foderè, vol. 4, p. 340.

‡ Mahon, vol. 1, p. 118.

|| Foderè, vol 4, p. 340. See also vol. 1, p. 389, 390, for similar and even more extraordinary cases.

§ Capuron states, that a few years ago, he divided this membrane in a female during labour, and in a short period she was delivered of living twins. P. 32.

logists generally is, that it is an extremely equivocal sign. I am, however, unwilling to go as far as most of the later writers on legal medicine, who virtually reject it altogether. While it must be allowed that it can be destroyed by causes which do not impair the chastity of the female, we are justified, I think, in attaching considerable importance to its presence. It would be difficult to support an accusation of rape, where the hymen is found entire.* Nor is the opinion so much at variance with the facts already stated, as may at first view be supposed. The case quoted from Gavard is a solitary one; and the numerous instances mentioned by writers on midwifery, where operations were required previous to delivery, certainly show a state of the hymen very different from its ordinary appearance and texture. I feel, therefore, justified in retaining it among the signs of virginity, although it should always be considered in connection with other physical proofs.

2. *Narrowness of the vagina.* In children, this part is extremely small; but it increases in size as they approach to the age of puberty. At that period, the developement produced by the determination of blood to the sexual organs, causes a turgescence and enlargement, which naturally place the parts in closer contact. In chaste females, also, rugæ are observed on the inner surface of the vagina; and these are removed by frequent connections, and destroyed by one or two deliveries. It has been objected to this as a sign, that it varies according to the age of the individual, the temperament, and the state of health. Some of these deserve attention. In individuals of a

* Smith, p.397. A case is however given in East's Crown Law, (1,438) where two surgeons swore that the hymen was entire. "But as this membrane was admitted to be in some subjects an inch, in others, an inch and an half, beyond the orifice of the vagina, Ashurst J. left it to the jury, whether any penetration was proved, *for if there were any, however small, the rape was complete in law.* The jury found the prisoner guilty." In this case, the female was ten years of age, and the parts were stated to be so narrow, that a finger could not be introduced. This decision is much at variance with the evidence at present required in such cases in England. See the concluding part of the 3d section of this chapter.

sanguine temperament, the parts will be most contracted; while, on the other hand, if fluor albus, chlorosis or menorrhagia, be present, there will be great dilatation.

3. I have already mentioned, that in the place of the hymen, certain fleshy tubercles, termed *carunculæ myrtiformes*, have been observed by anatomists; and shall now add, that a variety in their appearance has been considered indicative of chastity or unchastity. Zacchias remarks, that in the former they are red, tumid, and connected together by fleshy cords; but in married women (being situated at the entrance of the vagina) they are found pale, flaccid, and the cords torn asunder.* They are, however, generally considered as the remains of the hymen, "*et corruptæ adeo pudicitiae indicia.*"† They are then found thick, red, and obtuse at their extremities, somewhat resembling a myrtle-berry; and from this supposition their name is derived. They generally disappear after frequent connexions or deliveries.

In addition to the above, various signs have been enumerated by authors. These I will barely state, and refer the inquirer for more minute details to works on anatomy and midwifery. Pain during the first connexion, is deemed a proof; although the presence of menstruation or of disease may prevent this in many cases: so also blood from the rupture of the hymen.‡ The red and tumid appearance of the labia and nymphæ, and the rupture of the fourchette, are each extremely uncertain signs, since the latter does not generally occur until delivery, and the former may be present in the unchaste.

It should be observed with respect to the signs last enumerated, that although they may be present not-

* Zacchias, vol. 1, p. 378.

† Dr. Conquest, I observe, contradicts this opinion, and remarks that the *carunculæ* may be found when the hymen remains entire. *Outlines of Midwifery*, p. 17. The assertion in the text is, however, in conformity to the general belief of writers on obstetrics.

‡ This is indicated in the Jewish law. The curious will find some extraordinary discussion on this point in Zacchias, vol. 1, p. 376, and Michaelis, vol. 4. p. 192 to 199

withstanding the unchastity of the female, yet their absence is a proof against her. If the labia and nymphæ have the appearance which indicates previous connection ; if the fourchette be ruptured, and the fossa navicularis obliterated, the only deduction we can draw, must be an unfavourable one. Capuron, a disbeliever in the physical signs indeed, suggests, that a foreign body, such as a pessary, introduced with too much violence into the vagina, may have ruptured the fourchette ; or the menstrual fluid, by becoming acrimonious, may have eroded it.* Both these suggestions are, however, equally improbable, and deserve little attention in forming a general rule.

Systematic writers have added to these, other signs, but they are generally equivocal. The bright red colour of the nipples, the hardness of the breasts, and in fine, the general appearance of the female, all deserve attention, but can seldom be of any practical utility in determining on the point under examination.

From the above statement, an opinion may be formed concerning the dependence that is to be placed on the physical signs of virginity. It is not to be denied, that many may be equivocal ; but, notwithstanding, it is the duty of the medical examiner to notice them, and that, *in connexion with one another*. It cannot be possible that all those which we have mentioned as present during the chaste state, can be wanting, without justifying a strong suspicion against the female. Midwives should always be associated with physicians in such cases ; and they would be the proper examiners, provided their information and knowledge of the system were sufficiently extensive. It is also necessary to recollect that these appearances are most striking in females of a tender age ; and as a general rule, guided however by the climate and the habit of body, they are found most perfect in females not farther advanced in life than twenty or twenty-five years of age.†

* Capuron, p. 29.

† The following remark of Foderè on this subject, deserves quotation :

II. *Of the signs of defloration and rape.*

The marks of defloration, i. e. of connection without violence, are of course the reverse of those which we have stated in the preceding section. It is not necessary to recapitulate them in this place; but it is proper to observe, that they will most readily be seen, if the examination be made within a very short period after the event complained of: and again, the most striking proofs will occur where it has been the first connexion on the part of the female. Here the parts are generally found bloody, inflamed, and painful. Marks of a rupture of the hymen, or a disunion of the carunculæ, will also be present, together with an extreme sensibility to the touch, a sensation of heat, and a difficulty in walking. In married women, or libidinous females, the detection is more difficult, and in truth, in a great degree impossible, and that whether they accuse or are accused. The reasons for this will readily suggest themselves.

By the term *rape*, however, is understood not only defloration, but a commission of it against the will of the female; and again, the commission of this violence against a person of a tender age, who has as yet, in the legal sense of the term, no will. Here not only the signs of defloration already enumerated will be present, but also others indicative of the employment of force, such as contusions on various parts of the extremities and body. These, however, are compatible with final consent on the part of the female.

It also deserves attention, that disease has produced the appearance of external injury, and led to suspicions against innocent persons. Dr. Percival relates a case of serious importance in medico-legal investigations. Jane Hampson, aged four, was admitted

"Having often been engaged in such examinations, and finding the above named physical signs of virginity wanting, I have declared the female unchaste; and the pangs of child-birth have in a few months confirmed my decisions, although they were considered harsh at the time." (Vol. 4, p. 352.) We must, however, add, that the faculty of medicine at Leipsic declared, that there does not exist any true and certain sign of virginity, (Metzger—notes, p. 483,) and Morgagni is of a similar opinion. (Opuscula Miscellanea, p. 37.)

an out patient of the Manchester Infirmary, Feb. 11, 1791. The female organs were highly inflamed, sore, and painful; and it was stated by the mother, that the child had been as well as usual, till the preceding day, when she complained of pain in making water. This induced the mother to examine the parts affected, when she was surprised to find the appearances above described. The child had slept two or three nights in the same bed with a boy fourteen years old, and had complained of being very much hurt by him during the night. Leeches and other external applications, together with appropriate internal remedies, were prescribed; but the debility increased, and on the 20th of February the child died. The coroner's inquest was taken; previous to which, the body was inspected, and the abdominal and thoracic viscera found free of disease. From these circumstances, Mr. Ward, the surgeon attending this case, was induced to give it as his opinion, that the child's death was caused by external violence; and a verdict of murder was accordingly returned against the boy with whom she had slept. Not many weeks elapsed, however, before several similar cases occurred, in which there was no reason to suspect that external violence had been offered, and some in which it was absolutely certain that no such injury could have taken place. A few of these patients died. Mr. Ward was now convinced that he was under a mistake in attributing the death of Jane Hampson to external violence, and informed the coroner of the reasons which induced this change of opinion. Accordingly, when the boy was called to the bar at Lancaster, the judge informed the jury, that the evidence adduced was not sufficient to convict; and that it would give rise to much indelicate discussion, if they proceeded to the trial; and that he hoped, therefore, they would acquit him, without calling witnesses. With this request the jury immediately complied. The disorder in these cases, says Dr. Percival, had

been a typhus fever, accompanied with a mortification of the pudenda.*

A complaint resembling the above in many respects, has also been lately described by Mr. Kinder Wood. It is preceded by all the ordinary symptoms of fever for about three days. The patients then call the attention of parents to the seat of the disease, by complaints in voiding urine, &c. When the genital organs are examined, one or both labia are found enlarged and inflamed. The inflammation is of a dark tint, and soon extends internally over the clitoris, nymphæ and hymen. Ulceration succeeds, and the external organs of generation are progressively destroyed. This affection has proved very fatal, and seems to constitute a peculiar kind of eruptive fever.†

It is of great importance that the physician understand the possibility of such diseases occurring; “but we must take care not to run into the opposite error of ascribing inflammation, ulceration and discharge, in cases where violence has been alleged, to this disease, without sufficient grounds; *for it is extremely improbable that diseases which occur so rarely, should happen to appear in a child to whom violence was offered, unless that violence had some effect in producing it.*”‡

Marks of external injury are hence to be considered as *corroborating*, but not as *certain* proofs of the commission of a rape. The weight which they deserve, depends on several circumstances which it is proper to notice.

* Medical Ethics, p. 103 and 231. Capuron relates two cases of children, the one aged four and the other six years, both of whom were affected with a white and very acrid discharge from the vagina, accompanied with swelling of the external parts, severe pain, and indeed ulceration. A high fever was also present. In one instance, the parents loudly declared that violence must have been used towards their child. Professor Capuron, however, ascribed both to an epidemic catarrhal affection then prevalent in Paris, and considered the local complaint as entirely dependant on it. By the use of proper regimen, they readily recovered. Pages 41 and 42.

† Medico-Chirurgical Transactions, vol 7, p. 84. Out of twelve cases seen by Mr. Wood, only two appear to have recovered.

‡ Edin. Med. and Surg. Journal, vol. 13, p. 491.

1. *The age, strength, and state of mind of the respective parties.* However we may doubt whether a rape can be committed on a grown female, in good health and strength, (and this point I shall presently notice,) yet there can be no question but that it can be perpetrated on children of a tender age. Previous to the age of sixteen, or rather before the period of menstruation, the female is not only deficient in strength, but is also ignorant of the consequences of the act; and fear may induce her to consent to libidinous desires. Again, should a female accuse a man who is cachectic, or a valetudinarian, little credit is to be given to her charges; as the respective strength of the parties will show the improbability of the commission of the act. For a similar reason, the probability is increased when the accused is vigorous and the accuser infirm; and above all, should the female labour under imbecility of mind to such a degree as to render her incapable of judging concerning the morality of her actions, her age ought not to be taken into account. An individual of this description at twenty-five, is less capable of resistance than another of sound mind and body at fourteen. We must also add, that all accusations against persons aged above sixty years of age, should, as a general rule, be rejected; and if maintained, the accuser should prove the presence of greater strength and virility than is the ordinary lot of that period of life.

2. A comparison of the sexual organs may be necessary; since cases have occurred in which the male has proved impotency or defective organization, or has exhibited proofs of the destruction of parts by the venereal disease. In the female, however, it must be remembered, that it will be difficult to find the physical marks of rape, provided she is subject to the diseases formerly enumerated, or has had several children. In opposite cases, severe marks of the violence will be more evident; and these have sometimes been of the most striking kind, inducing in one instance.

according to Teichmeyer, great inflammation, and an incurable paralysis of the lower extremities.*

3. A speedy examination of the parts is all important in disputed cases. The body of the male should also be inspected, whether there be scratches or bruises on it.

I have intimated, that doubts exist whether a rape can be consummated on a grown female in good health and strength. It has been anxiously inquired, whether this violence, if properly resisted, (and this is included in the very definition of rape,) can be completed? And in the consideration of this, it is needless to observe, that those cases, in which insensibility by violence or soporifics, has been previously produced, or where many are engaged against one female, are of course excluded. Some hesitation is doubtless proper in deciding on a question of this magnitude; but I confess that I am strongly inclined to doubt its probability. The opinion of medical jurists generally is very decisive against it. “En un mot,” says Mahon, “d’après la connaissance physique que les medecins ont de l’homme et de la femme, relativement a cet attrait imperieux qui porte invinciblement les deux sexes, l’un vers l’autre, d’après surtout l’impossibilité presque’ entiere, ou est un homme seul de forcer une femme à recevoir ses caresses, on doit rarement ajouter foi a l’existence du *viol*; je crois même qu’il seroit prudent de ne l’admettre que lorsque plusieurs hommes armés se sont réunis pour commettre ce crime.”† “An attempt,” says Farr, “under which is to be understood, a great force exercised over a woman to violate her chastity, but where a complete coition is prevented, may be possible. But the *consummation* of a rape, by which is meant a complete, full, and entire coition, which is made without any consent or permission of the woman, seems to be impossible, unless some very extraordinary circumstances occur. For a woman always

* MS. Notes of Stringham’s Lectures.

† Mahon, 1. 136.

possesses sufficient power, by drawing back her limbs, and by the force of her hands, to prevent the insertion of the penis, whilst she can keep her resolution entire.”* “Indépendamment de l’arme que la loi met dans la main de la femme pour repousser l’injure, elle a infiniment plus des moyens pour se défendre que l’homme n’en a pour attaquer, ne fut ce que le mouvement continuel.” And again, “J’estime qu’une personne du sexe, qui a atteint l’âge de dix-huit à vingt ans, ne peut plus être prise par force par un homme seul, quel qu’il soit, à moins de la menace d’une arme meurtrière, et que la crainte de la mort ne soit plus forte que celle de perdre l’honneur.”† Metzger only allows of three cases in which the crime can be consummated—where narcotics have been administered—where many are engaged against the female—and where a strong man attacks one who is not arrived to the age of puberty.”‡ If to these we add the commission of previous violence, so as to disable the female, or extreme disproportion in strength, the exceptions will probably be sufficiently numerous.||

Cases in which false accusations of rape have been made against individuals, are scattered through most of the works on medical jurisprudence.§ I shall quote one, both from its having happened not long since, and

* Farr, p. 41 and 42.

† Foderè, 4, p. 359, 360. Capuron advances the same opinion, p. 54; and Brendelius, p. 96.

‡ Metzger, p. 255.

|| I must add to the above the following answer given by the medical faculty of Leipsic, to the question, whether a single man could ravish a woman. “Si circumstantias quæ in actu coeundi concurrunt, consideramus, non credibile, nec possibile videtur, quod unus masculus nubilem virginem (excipe impubem, teneram, delicatam, aut simul ebriam puellam) absque ipsius consensu, permissione, atque voluntate vitare, aut violento modo stuprare possit; dum femina cuilibet facilius est, si velit, penis immissionem recusare, vel multis aliis modis impedire, quam viro eidem invitæ planè intrudent.”—Valentini Pandectæ, vol. 1, p. 61.

§ See the case of one *Stephen Nocetti*, which was referred to Zacchias, and where there was an actual deficiency of parts. The accusation was made four months after the supposed commission of the crime. (Consilia, No. 34, vol. 3, p. 62.)—Also the case of *Erminio*. (Consilia, No. 41, vol. 3, p. 74.)—Foderè also quotes a case from Devaux, where there was nothing but a slight excoriation of the parts; and of course it was decided that there were no evidences of a rape having been committed. (4. 371.)—I will only add a caution, not to mistake menstruation for the effects of defloration.

also as it shows the course pursued in such instances in France. A female at Martigues, in 1808, accused eight or ten of the principal persons in the place, of having violated her grand-daughter, aged about nine years and an half, at an inn. She laid her complaint before the justice, (*juges de paix*;) but stated that she would withdraw it, provided the accused would accommodate the matter with her. She had procured a daughter of the innkeeper, aged sixteen, and an idiot, as a witness. As the charge was obstinately persisted in, Foderè, with two officers of health, was ordered to examine the child in the presence of the judge; and suspicion was immediately excited, from the delay used in admitting the visitors. On examining the parts, he found the hymen untouched, and the vagina extremely narrow. Around the pudenda, however, a red circle about the size of a crown, was observed, which appeared to have been induced recently; and this was indeed the fact; for at the end of half an hour, the circle had decreased in size, and the redness disappeared. Had this been the effect of great violence, it is natural to suppose that it would have increased in intensity of colour. A report was prepared, stating the above facts; and the consequence was, that the accuser was put in prison, and finally ordered out of the city.*

Instances sometimes occur, in which death has followed the consummation of a rape, from the violence employed. Here, if the physician be called on to examine the body, he should particularly notice the condition of the sexual organs, both internal and external; and also ascertain whether no proofs are present, from which the exertion of violence may be presumed, such as the introduction of substances into the mouth to prevent crying out, contusions, or dislocation or fracture of the extremities. He should notice whether the labia are dilated and flaccid, the

* Foderè, vol. 2, p. 456; and vol. 4, p. 371. The distinction made in Deuteronomy, chap. 22, between the commission of the crime *in the city* or *in the field*, deserves attention in the consideration of this point.

state of the hymen, clitoris, nymphæ and vagina generally, and also whether the fourchette is ruptured. The fluid, (if any be present) contained in the vagina, should be examined, whether sanguineous, mucous or purulent, and the presence or absence of tumefaction and extraordinary dilatation, should be remarked.*

III. *The laws of various countries concerning this crime.*

There are two reflections which are of deep weight in all our investigations on this subject, and which should particularly be kept in mind when noticing the laws concerning it. The nature of the crime, being an offence against the weaker sex, and committed in secrecy. Being of so detestable a character, and so difficult to be proved, the law has wisely ordained that the testimony of the injured person shall be sufficient, unless impeached, to convict the criminal. But again, and this is the second remark, false accusations are frequently made for the gratification of malice and revenge. The scriptures, and the records of courts in all countries, bear testimony to this.† In this point of view, the medical jurist may often aid the ends of justice in punishing the wicked, and absolving the innocent.‡

I have thought that a sketch of the laws of various countries concerning this crime might prove interesting, and in some degree useful. The materials for this purpose have been collected in a

* Foderè, 4. 372.

† On the trial of Levi Weeks for the murder of Miss Sands, held at New-York, March, 1800, the counsel for the prisoner stated, that "in that very city, a young man, not many years ago, had been charged with the crime of rape. The public mind was highly incensed; and even after the unfortunate man had been acquitted by the verdict of a jury, so irritated and inflamed were the people, that the magistrates were insulted, and they threatened to pull down the house of the prisoner's counsel. After that, a civil suit was instituted for the injury done the girl, a very enormous sum given in damages, and the defendant was ignominiously confined within the walls of a prison. Now it has come out, that the accusation was certainly false and malicious."—Report of the Trial, &c. p. 67.

‡ "A man named Stewart, was tried at the Old Bailey in 1704, for ravishing two female children. The evidence being at variance as to the fact of penetration, the children were sent out of court to be examined, and the eldest was found to have the signs of virginity."—Smith, p. 397.

great measure by Blackstone and Percival, and I have added to these, the laws existing in various states throughout the union. I shall notice, separately, the laws respecting the commission of the crime, on the female of tender age, and on the female who has arrived at maturity.

1. As this crime can be committed with the greatest facility on children under the age of puberty, in consequence of their want of strength, but particularly from their ignorance of the consequences of the act, the law has wisely directed that the consent or non-consent of the female under age is immaterial, "as by reason of her tender age, she is incapable of judgment and discretion."

In the 3d year of Edward I. by the statute, Westminster, the offence of ravishing a damsel within age, (that is, *twelve* years old,) either with her consent or without, was reduced to a trespass, if not prosecuted by appeal within forty days, and the offender was subjected to two years' imprisonment, and a fine at the king's will. This lenity, however, was in a short time found very injurious, and by statute 18 Elizabeth, chap. 7, carnally knowing and abusing a child under the age of *ten* years, was made felony, without benefit of clergy. Sir Matthew Hale, says Blackstone, is indeed of opinion, that such actions committed on an infant under the age of *twelve* years, the age of female discretion by the common law, either with or without consent, amount to rape and felony, as well since as before the statute of Queen Elizabeth; but that law, he adds, has in general been held only to extend to infants under *ten*.*

The French code of 1810, ordains, that if the crime has been committed on a child under the age of *fifteen* years, the offender shall be condemned to hard labour for a limited time, (*travaux forcés à temps*.)†

In our own state, the statute of the 18th of Elizabeth appears to have been copied. By an act passed

* Blackstone's Commentaries, vol. 4, p. 212.

† Foderè, vol. 4, p. 329. Capuron, p. 1. They quote the Code Penal, Art. 332.

Feb. 14, 1787, it was ordained, that if any person should unlawfully or carnally know a woman child under ten years of age, such unlawful or carnal knowledge should be adjudged a felony, and the criminal should suffer death.* But by an act passed March 21, 1810, the above punishment is changed to that of imprisonment in the state prison for life. In Massachusetts and Illinois, death is the punishment.† In Virginia, New-Hampshire, Connecticut and New-Jersey, imprisonment either for life, or a long term of years, is directed.‡ All these specify the period of *ten* years. The law in Vermont varies from this. It directs, that whenever any individual over the age of fifteen shall abuse any female under *eleven*, with or without her will, he shall suffer fine and imprisonment.||

A few remarks are here necessary as to the credibility of witnesses in these cases. "If a rape," says Blackstone, "be committed on an infant under twelve years of age, she may still be a competent witness, if she hath sense and understanding to know the obligation of an oath, or even to be sensible of the wickedness of telling a deliberate lie. Nay, though she hath not, it is thought by Sir Matthew Hale, that she ought to be heard without oath, to give the court information; and others have held, that what the child told her mother, or other relatives, may be given in evidence, since the nature of the case admits frequently of no better proof.§ But it is now settled, he adds, (Brazier's case before the twelve judges, 19, George III.) that no hearsay evidence can be given of the declaration of a

* Jones & Varick's edition of the Laws of New-York, vol. 2, p. 47.

† General Laws of Massachusetts, Boston, 1807, vol. 3, p. 340. Laws of Illinois, passed in the session of 1819, p. 219.

‡ Revised Laws of Virginia, Richmond, 1803, vol. 1, p. 356. Laws of New-Hampshire, Concord, 1812, p. 7. Revised Laws of Connecticut, Hartford, 1821, p. 152. Revised Laws of New-Jersey, Trenton, 1821, p. 246.

|| Laws of Vermont, Rutland, 1798, p. 159.

§ Formerly it was the practice in the English courts to refuse the evidence of children. See the King v. Travers, in 1st Strange, p. 700. Lord Chief Baron Gilbert, and Chief Justice Raymond, at two different trials, refused the evidence of the injured child, who was six years old, and the man was acquitted for the want of evidence.

child, who hath not a capacity to be sworn, nor can such child be examined in court without oath, and that there is no determinate age, at which the oath of the child ought either to be admitted or rejected.* Yet," he adds, "where the evidence of children is admitted, it is much to be wished, in order to render their testimony credible, that there should be some concurrent testimony of time, place, and circumstances, in order to make out the fact, and that the conviction should not be grounded singly on the unsupported accusation of an infant under years of discretion."†

2. I shall now proceed to give an enumeration of the laws of various countries against the crime of rape, arranged, as much as possible, in chronological order. "If a man," says the Jewish law, "find a betrothed damsel in the field, and the man force her and lie with her, then the man only that lay with her shall die. But unto the damsel thou shalt do nothing—for he found her in the field, and the betrothed damsel cried, and there was none to save her."‡ In case the female was not betrothed, then a

* The case above mentioned was as follows: One Brazier was indicted at the assizes for York, for a rape on an infant seven years of age. The information of the infant was received in evidence against the prisoner; but as she had not attained the years of presumed discretion, and did not appear to possess sufficient understanding to be aware of the danger of perjury, she was not sworn. The prisoner was convicted; but the judgment was respited, on a doubt whether evidence, under any circumstances whatever, could be legally admitted in a criminal prosecution, except upon oath. Mr. Justice Gould, accordingly, reserved this point for the opinion of the twelve judges; and they unanimously agreed, "that no testimony can be received legally, except upon oath; and that an infant, though under the age of seven years, may be sworn in a criminal prosecution, provided such infant appears, on strict examination by the court, to possess sufficient knowledge of the nature and consequences of an oath; for there is no precise or fixed rule as to the time within which infants are excluded from giving evidence; but their admissibility depends upon the sense and reason they entertain of the danger and impiety of falsehood, which is to be collected from their answers to questions propounded to them by the court; but if they are found incompetent, their testimony cannot be received."—East's Crown Law, 1, p. 444.

† Blackstone, 4, p. 214.

‡ Deuteronomy xxii. 25. Michaelis, however, contends, that for rape, as rape, no punishment is appointed by the Mosaic law; and he explains the above passage by considering it only as rape committed on a bride. In either case, whether in the city (verse 23) or in the field, the perpetrator was to be punished—but not if the female was not betrothed. Our author proposes

fine of fifty shekels was to be paid to her father, and she was to be the wife of the ravisher, without permitting him the power of divorce. Among the Athenians, rape was punished with death, and by the Roman or civil law, with death and confiscation of goods.* The latter, however, ordained, "*Rapta raptoris, aut mortem, aut indotatas nuptias optet,*" and upon this, says Dr. Percival, there arose what was thought a doubtful case. "*Una nocte quidam duas rapuit, altera mortem optat, altera nuptias.*"† The Roman law also would not receive the complaint of a prostitute.‡

Charlemagne punished with death, whoever violated the daughter of his master.‖ The Burgundian laws provided that if the young woman carried off, returned to her parents actually corrupted, the offender should pay six times her price or legal valuation, and also a mulct of twelve shillings. If he had not wherewithal to pay these sums, he should be given up to her parents, or near relatives, to take their revenge on him in what way they pleased. By the Welsh laws of Prince Hoel Dha, if two women were walking together without other company, and violence was offered to either or both of them, it was not punishable as a rape; but if they have a third person with them, they might claim their full legal redress. If the perpetrator of a rape, being accused, confessed the fact, besides full satisfaction to the woman, he was to

several reasons for this omission, and amongst others, the debasement which polygamy produces in the female sex, and the law, that whoever debauched a damsel, should marry her. This last he deems a more effectual preventive of rape, than capital punishment. Michaelis' Commentaries, 4. p. 169 to 174.

* Gibbon, 2, p. 252. Law of Constantine.

† Medical Ethics, Note 17, p. 231.

‡ Foderè, 4, p. 325.

‖ "Si quis filiam domini sui rapuerit, morte moriatur." See Memoirs of Literature, 6, p. 103. "A notice of the Monumenta Paderbornensia, to which is added the capitulary of Charlemagne from a very ancient Palatine manuscript in the Vatican, published in 1713." Hallam also mentions, that under the feudal system, it was considered a breach of faith in the vassal, to violate the sanctity of his master's roof. In the Establishments of St. Louis, chap 51, 52, it is said, that a lord seducing his vassal's daughter, entrusted to his custody, lost his seignory; and a vassal guilty of the same crime towards the family of his suzerain, forfeited his land. Hallam's Middle Ages, vol. 1, p. 187. Amer. ed.

answer for the crime to his sovereign, by the present of a silver stand as high as the king's mouth, and as thick as his middle finger, with a gold cup upon it, so large as to contain what he could take off at one draught, and as thick as the nail of a country fellow who had worked at the plough seven years. If the offender was not able to make such a present, *virilia membra amittat*. By the law of Æthelbert, the first Christian king of Kent, it was enacted, that if any person takes a young woman by force, he shall pay her parent or guardian fifty shillings, and shall make a further compensation for her ransom. If she were espoused, he shall compensate the husband by an additional payment of twenty shillings. But if she were with child, the augmented fine shall be five and thirty shillings, and fifteen more to the king. There is also an ordinance of Alfred in existence, for the punishment of rapes committed on country wenches, who were servants; an offence, (says Dr. Percival) which may be supposed to have been prevalent at that time.* Rape, however, by the Saxon laws, particularly those of King Athelstan, was punished with death, which was also agreeable to the old Gothic or Scandinavian constitutions. Besides this, the horse, greyhound and hawk of the offender were subjected to great corporal infamy. Instead of this, a new punishment was inflicted by William the Conqueror, who probably brought the custom from Normandy, viz: castration and loss of eyes. During the period that this was in force, the woman, who was the sufferer, might (by consent of the judge and her parents,) redeem the criminal from all the penalties, if before judgment, she demanded him for her husband, and he also was willing to agree to this exchange. This law of William continued in force in the reign of Henry the Third; but in order to prevent malicious ac-

* It is as follows: "Si quis coloni mancipium ad stuprum comminetur, 5 sol. Colono emendet et 60 sol; multæ loco. Si servus servam ad stuprum coegerit, compenset hoc virgâ suâ virili. Si quis puellam teneræ ætatis ad illicitum concubitum comminetur, eodem modo puniatur quo ille, qui adultæ servæ hoc facerit."—Percival, p. 228.

cusations, it was then law, (and it seems still continues to be so in appeals of rape,) says Blackstone, that the woman should immediately after, "*dum recens fuerit maleficium,*" go to the next town, and there make discovery to some credible persons of the injury she has suffered, and afterwards should acquaint the high constable of the hundred, the coroners and the sheriff, of the outrage. This seems to correspond, in some degree, with the laws of Scotland and Arragon, which require, that complaint must be made within twenty-four hours ; though afterwards by statute Westm. the time of limitation was extended to forty days. This statute, passed in the 3d of Edward I. repealed the law of the Conqueror, and greatly mitigated the punishment. The offence of ravishing a woman against her will, was reduced to a trespass, if not prosecuted by appeal within forty days, and it subjected the offender only to two years' imprisonment, and a fine at the king's will. But this lenity was found productive of the most terrible consequences, and in ten years after, 13th Edward I. it was found necessary to make the offence of forcible rape, felony by statute.*

The constitution of Charles the Fifth enacted the punishment of death for rape, and the edict of Francis the First, preserved by Coquille, together with the ordinances of Orleans and Blois, forbid the asking of pardon for this crime. Henry the Second of France, by an ordinance of 1557, condemned those who had forced a woman or a girl, to be hung. Such was also the edict of Louis XV. in 1730, and such are the laws of various states in Italy. The ancient parliaments of France, during the 16th and 17th centuries, enforced the law with great severity on those accused of the crime.†

* Blackstone, vol. 4, p. 210, 211. Percival, p. 100; and Note 17. p. 228. Chitty's Criminal Law, 2, p. 813.

† Foderè, 4, p. 326. "Among the familiar customs of the *Isle of Man*, are the following: If a man ravish a wife, he must die—if a maid, the deempsters (the judges) deliver to her a rope, a sword, and a ring; and she is then to have her choice, to hang, behead, or marry him." See a Review of a

The above gleanings will elucidate, in some degree, the laws of former times concerning this crime. I now proceed to mention those which are, or lately have been, in force. The following maxims, says Foderè, (which he quotes from Boerius,) have been adopted for thirty years in Neapolitan jurisprudence, viz. that in accusations for rape, there be full proof of the following facts : 1. That there has been a constant and equal resistance on the part of the person violated. 2. That there is an evident inequality of strength between the parties. 3. That she has raised cries ; and 4. That there be some marks of violence present. The French code of 1791, ordained that a simple rape should be punished with six years confinement in irons ; but if the rape be committed on a child under fourteen years, or if the criminal had effected the crime by violence, or by the aid of accomplices, the punishment should be twelve years' confinement in irons. The law of 2d Prarial L'an 4, (1796) prescribed the same punishment for an attempt, if accompanied by violence. All these ordinances were, however, annulled by the Napoleon code, which prescribes imprisonment for the crime, if consummated or attempted with violence. If, however, the criminal has any authority over the person injured, such as a guardian or a teacher, if he be a servant, public functionary, or clergyman, and finally, if the individual, whoever he be, is aided by one or more persons, the punishment shall be imprisonment for life.*

In Scotland, the ravisher is exempted from the pains of death, only in case of the woman's subsequent consent, or her declaration, that she went off with him of her own free will ; and even then he is to suffer an arbitrary punishment, either by imprisonment, confiscation of goods, or a pecuniary fine.†

Tour through the Isle of Man, by David Robertson, Esq. London, 1793, in the British Critic, vol. 3, p. 408. In *China*, rape is punished with death. See Edinburgh Review, 16, p. 498. (Review of the Penal Code of China, translated by Sir George Staunton.)

* Foderè, 4, p. 328, 329. Code Penal, Art. 331, 333.

† Edin. Encyclop. vol. 11, p. 823. *Law of Scotland*.

The law at present in force in England, is the statute 18th Elizabeth, chap. 7, in which rape is made felony, without benefit of clergy. It is a necessary ingredient in the English law, that the crime should be against the woman's will, and in this, it differs from the Roman, which prescribed the same punishment, whether the female consented or not. The civil law also, (as we have already stated) does not seem to suppose a prostitute capable of any injuries of this kind, whilst the English law holds it felony to force even a concubine or harlot, because the woman may have forsaken that course of life. At present, also, no time of limitation for making complaint is fixed, but the jury will rarely give credit to a stale accusation. In addition to these, we may add, that the common law considers a male infant, under the age of fourteen, as incapable of committing a rape, and therefore cannot be found guilty of it. For though, (says Blackstone) in some felonies, *malitia supplet ætatem*, yet as to this particular species, the law supposes an imbecility of body as well as mind.*

In the state of New-York, death was formerly the punishment for committing a rape on a married woman or a maid. (Act passed Feb. 14, 1787.)† And it was also ordained at the same time, that if a woman had been ravished, and afterwards consented to her ravisher, her husband, father, or next of kin, might sue by appeal against such offender.‡ These laws, however, have been repealed, the punishment altered, and appeals of felony abolished. The acts now in force, prescribe the punishment of imprisonment for life in the state prison, on the offender and his accomplices, if he have any, for ravishing by force any woman child of the age of ten years or upwards, or any other woman. An assault with an intent to commit a rape, may be punished by fine and imprisonment, or both.¶

* Blackstone, 4, chap. 15, sec. 3.

† Jones & Varick's edition of the Laws, vol. 2, p. 57.

‡ Ibid. vol. 2, p. 57.

¶ Revised Laws, vol. 1, p. 156, 408, 409, 410, 500.

In the states of Delaware, South-Carolina, Connecticut, Massachusetts and Illinois, death is the prescribed punishment.§ While in Pennsylvania, Virginia, Vermont, New-Hampshire and New-Jersey, imprisonment for a long term of years, with or without fine, is directed.†

There is one point which deserves attention before I conclude the present section. Rape is the *carnal knowledge* of a female, forcibly and against her will. It has been a subject of some legal discussion, as to what constitutes this carnal knowledge. Some judges have supposed that penetration alone was sufficient, while others have contended that penetration and emission are both necessary. All seem agreed that the latter without the former will not suffice. The following abstract, taken from Chitty's Treatise on the Criminal Law, will give an idea of the fluctuating state of jurisprudence on this subject. "Lord Coke, in his reports, supposes both circumstances must concur, 12 Cok. 37, though he does not express himself so clearly in his institutes. Hawkins, without citing any authority, or hinting a doubt, declares the same opinion. Hale, however, differs from both, and considers the case in Coke's Reports as mistaken. In more modern times, prisoners have been repeatedly acquitted, in consequence of the want of

§ Laws of Delaware, Newcastle, 1797, vol. 1, p. 67. Public Laws of South-Carolina, edited by Judge Grimke, p. 30. Revised Laws of Connecticut, Hartford, 1821, p. 152. Laws of Massachusetts, Boston, 1807, vol. 3, p. 340. Laws of Illinois, passed in 1819, p. 219—The laws of Virginia and Illinois contain some peculiarities which deserve mention. The former (vol. 1, p. 183,) declare, that "it shall not be lawful for any county or corporation court to order or direct the castration of any slave, except such slave shall be convicted of an attempt to ravish a white woman; in which case they may inflict such punishment." In Illinois, it is declared by statute, that so much of the law regulating the evidence in case of rape, as makes emission necessary, is hereby repealed; but it adds the following proviso, which I can hardly approve: "That the court before whom any offender may be brought for trial for said offence, shall have other satisfactory proof or evidence of violence on the person of the woman reported to have been ravished." In Missouri, I am informed on good authority, that the punishment directed by law for rape, is castration by a skilful surgeon.

† Laws of Pennsylvania, Philadelphia, 1803, vol. 5, p. 2. Revised Laws of Virginia, Richmond, 1803, vol. 1, p. 356. Laws of Vermont, Rutland, 1798, p. 159. Laws of New-Hampshire, Concord, 1812, p. 7. Revised Laws of New-Jersey, Trenton, 1821, p. 246.

proof of emission. In one instance, on the other hand, the prisoner was found guilty under the direction of Justice Bathurst, who did not consider this fact as necessary to the consummation of the guilt. But in Hill's case, which was argued in 1781, a large majority of the judges decided that both circumstances were necessary, though Buller, Loughborough and Heath maintained a contrary opinion. This then," he adds, "seems to be the stronger opinion, and at the present day, if no emission took place, it would be more safe to indict for an attempt to commit, by which means a severe punishment might be inflicted."*

Although the definition of the crime seems thus to be settled, yet if we proceed to notice the mode in which the emission is to be proved, we shall find some discordance. East observes, that penetration is *prima facie* evidence of it, unless the contrary appears pro-

* Chitty's Criminal Law, vol. 2, p. 810. This abstract is for the most part taken from East's Pleas of the Crown, (vol. 1, p. 437 to 440.) In this last a number of cases are given, which very strikingly prove the diversity of opinion that has existed amongst the English judges. The leading particulars in the case of Hill, cited above, are also stated; and the great majority of the judges that deemed both necessary, to constitute the crime, seems to have settled the law in that country. A decision conformable to it was made by Baron Richards at the Northumberland assizes in 1815; and as the case is interesting, I shall detail its leading particulars. The prosecutrix was a married woman, apparently between thirty and forty years of age. The defendants were two brothers, by one of whom the act was alleged to have been perpetrated, while the other held the husband forcibly down at not more than two yards distance from the spot where his wife was said to have been violated. The woman swore positively to the penetration, but could not swear to the emission; and she assigned as a cause, the agitation and syncope which supervened during the struggle. She perfectly comprehended the import of the question put to her; and declared explicitly, that she had, on every previous coition with her husband, been sensible of the act of emission. Nor could she say that she was aware of any unusual humidity of the parts immediately after the commission of the crime. This she ascribed to having tumbled or waded through some water at the bottom of the dean where the assault took place. On both these points, Baron Richards laid great stress; and told the jury, that the fact of emission must be sworn to or proved, in order to constitute the crime of rape, according to the law of England. The evidence of the husband also went to prove, that the ravisher remained long enough on the body of the female to complete his purpose. The evidence for the prosecution, however, failed in credibility; as the prisoner's counsel, besides the above particulars, showed satisfactorily, that the man and his wife were at the time in a state of intoxication, sufficient to destroy the validity of what they had sworn to. The prisoners were accordingly found not guilty.—Edin. Med. and Surg. Journal, vol. 12, p. 207.

bable from the circumstances ; and adds, that Hawkins is express to that purpose. "So where, upon an indictment for an assault with an intent to ravish the prosecutrix, she swore that the defendant had had his will with her, and had remained on her body as long as he pleased, though she could not speak as to emission, Judge Buller said that this was a sufficient evidence to be left to a jury of an actual rape ; and therefore ordered the defendant to be acquitted under the present charge. He said, that he recollected a case, where a man had been indicted for a rape, and the woman had sworn that she did not perceive any thing come from him ; but she had had many children, and was never in her life, sensible of emission from a man : and that was ruled not to invalidate the evidence which she gave of a rape having been committed on her."* Chitty observes, "It is certain that no direct evidence need be given to the emission ; but that will be presumed on proof of penetration, until rebutted by the prisoner. And it will suffice to prove the least degree of penetration, so that it is not necessary that the marks of virginity should be taken from the sufferer."† So also Baron Richards, in the case cited below, although he deemed emission essential, and the woman was not sensible of it, yet he told the jury, that it was for them to deliberate whether, on a careful examination of all the other collateral circumstances of the case, they had reason to be satisfied that this part of the crime, as well as every other, had been actually consummated.‡

It may appear presumptuous in me to canvass the high authorities now cited ; but it would certainly seem, that on the one hand, a solemn decision has been made, recognizing emission as necessary to con-

* East, 2, p. 440. This case was tried at the Winchester assizes, 1787.

† Chitty, 2, p. 812. I have already quoted the case (p. 76,) on which the latter part of this dictum is founded. This may probably be correct in children under ten years of age ; but in all others, it will be readily observed, that if it be allowed, all possibility of the female's proving the emission is in a great measure done away. Surely such instances are rather to be considered as *attempts to commit the crime*, than the *consummation of it*.

‡ Edin. Med. and Surg. Journal, 12, p. 208.

stitute the crime ; while on the other, penetration is considered as *prima facie* evidence of it ; and that a jury, even if the former be not directly sworn to, are allowed to judge from all the circumstances presented to them, whether it did not occur. But even if it be consistent, I conceive that it is objectionable to insist on this proof.

If there be any truth in the views already intimated concerning the possibility of committing this crime, and the cases in which it may be completed, certainly the necessity of establishing the fact of emission must prove an insuperable barrier to any conviction. We may divide females, with reference to this subject, into two classes—the young, unmarried persons ; and the married, or those accustomed to sexual intercourse. As to the first, it may be considered very improbable that they could be conscious of this, while labouring under the influence of terror, severe pain, faintness, or insensibility. And to this class also belong those of a very tender age, who are totally ignorant of the nature of the crime, and of what is necessary to complete it.

It is, however, urged, that there is great propriety in requiring this testimony from married females ; and that if they are not sensible of that “ which constitutes the very essence and climax of feeling,” their declarations do not deserve much credit as to the other parts, in which a less degree of poignancy of sensation is requisite.* I confess, that language of this kind appears to me misapplied. If proper resistance be made, where the contest is solely between two individuals of strength in any degree proportionate, the crime can scarcely be completed without violent personal injury to the female. The exhaustion that must be present, superadded to mental agitation, leave us some reason to doubt whether this enjoyment can be realized. And it also deserves consideration, that if the resistance has been *complete throughout*, such pain

* Edin. Med. and Surg. Journal, vol 12, p. 209 .

may ensue from the repeated attempts to effect the crime, as to dull all sensation on this point. I forbear pressing the case mentioned by Judge Buller, although it is probable that other females, like the one mentioned by him, may not be sensible of it.*

It may appear a rash conjecture, but I cannot forbear adding, that the apprehension of false accusations appears to have led to the investigation in question. Whether this would not be better obviated by inquiring more minutely into the degree of violence used, and ascertaining whether it would justify the submission of the female, is a point which I leave to those who are entrusted with the formation and administration of our laws. In our own state, I have understood, that indictments *for an attempt* have of late years been more in use, than for the crime itself.†

IV. *Of some Medico-Legal questions connected with this subject.*

Three questions relating to the subject before us, have at various times been discussed, and they all deserve a brief notice.

1. *Whether the presence of the venereal disease in the female violated, is a proof in favor or against her accusation?* If on examination, the marks of this disease are found recent, it will be proper to consider them as corroborating circumstances. It is necessa-

* "Considering the nature of the crime, that it is a brutal and violent attack upon the honour and chastity of the weaker sex, it seems more natural and consonant to the sentiments of laudable indignation which induced our ancient lawgivers to rank this offence among felonies, if all further inquiry were unnecessary, after satisfactory proof of the violence having been perpetrated by actual penetration of the unhappy sufferer's body. *Upon what principle, and for what rational purpose, any further investigation came to be supposed necessary, the books which record the dicta to that effect do not furnish a trace.*"—East, 2, p. 436—437.

† A case was tried some years since at the Albany circuit, by Mr. Justice Platt, in which he declared the law to be as laid down by the judges in Hill's case. Emission, however, is not considered essential in Pennsylvania, (according to Judge Cooper;) and properly, he adds, for it is not the essence of the crime, and it may happen without being perceived in cases of violence. (Cooper, p. 229.)—In Illinois, I have already stated, it is expressly enacted, "that so much of the law regulating the evidence in case of rape, as makes emission necessary, is hereby repealed." (Acts passed in 1819, p. 219.)

ry, however, to remark, that the symptoms of venereal infection do not commonly make their appearance until three days after receiving it, while the examination should be made within that time. Should the appearances indicate any thing like a disease of long standing, they must of course tend to weaken the complaint of the female. The following is a case which will illustrate these observations. On the 11th of Dec. 1811, Foderè was directed by the imperial attorney of the court of Trevoux, to visit a female aged from eleven to twelve years, who accused a man aged fifty, and of large stature, of having committed a rape on her. The crime she stated was consummated on the 26th of Nov. preceding. On examination, our author found that in this person, the menses had not yet appeared, the nymphæ were inflamed, and the parts surrounding the meatus urinarius discharged an acrid gonorrhœal fluid, the hymen was ruptured, and the entrance of the vagina enlarged, but the fourchette was not ruptured, nor were there any signs of great violence, or such as might be expected from the disproportion between the individuals. Foderè reported that the venereal disease in this child was a proof of connection, but he did not consider it so of rape. Her conduct, he adds, was destitute of all modesty. The accusation was, however, persisted in; but on the trial, it was proved that the parents had placed her with a woman who was a prostitute, and also that the child had never complained of violence, until after she discovered symptoms of the venereal. The prisoner was acquitted.*

2. *Can a female be violated during sleep, without her knowledge?* If the sleep has been caused by powerful narcotics, by intoxication, or if syncope, or excessive fatigue be present, it is possible that this may occur, and it ought then to be considered, to all intents a rape. In such cases, the quantity of stupifying drugs administered may be so great, as to render her

* Foderè, 4, p. 365—366.

unable, even if awakened by the violence, to withdraw from it. The proof of the crime is to be obtained from the injury sustained, from the symptoms attendant on the exhibition of narcotics, (if they have been given,) and which will be noticed under the head of Vegetable Poisons, and finally, (what may certainly happen) pregnancy occurring, and its term corresponding to the above æra. As to natural sleep, I totally disbelieve its possibility with a pure person. The medical faculty of Leipsic, however, in 1669, decided that it might be accomplished. I prefer, however, the opinion of the juridical faculty of Jena, who in a similar case, only allowed the exceptions already stated.* As to females, accustomed to sexual intercourse, it has been supposed practicable, but if we do agree to that opinion, the circumstances certainly should be very corroborative. Some degree of scepticism may, I think, be permitted concerning it.†

3. *Does pregnancy ever follow rape?* On this question a great diversity of opinion has existed. It was formerly supposed that a certain degree of enjoyment was necessary in order to cause conception, and accordingly the presence of pregnancy was deemed to exclude the idea of a rape. Late writers, however, urge that the functions of the uterine system are in a great degree, independent of the will, and that there may be *physical constraint* on those organs, sufficient to induce the required state, although the will itself is not consenting. We do not know, nor shall probably ever know, what is necessary to cause conception; but if we reason from analogy, we shall certainly find cases where females have conceived, while under the influence of narcotics, of intoxication, and even of asphyxia, and consequently without knowing or partaking of the enjoyment that is insisted

* The Faculty of Leipsic decided, "dormientem in sella virginem insciam deflorari posse." Valentini Novellæ, p. 30, 31. In his introduction, (page 2,) our author sneers at the ridiculous decision in this case. "Non omnes dormiunt, qui clausos et conniventes habent oculos."

† See on this question, Foderè, 4 p. 367; Capuron, p. 52; Smith, p. 401; and B. endehus, p. 96 and 98-9. This last doubts its possibility, even in the exceptions stated in the text.

on. I should, therefore, consider that pregnancy was not incompatible with the idea of rape, under the limitations already laid down. Several writers on this subject are, however, of a different opinion, and particularly Dr. Bartley, who goes so far as to recommend that pregnancy shall be considered a proof of acquiescence, and that in order to ascertain this, the punishment of the criminal be delayed till the requisite time.*

The law is in accordance with the opinion advanced above. Foderè mentions that there is a decree of the parliament of Toulouse, which decides in the affirmative, and that on the opinion of physicians, who reported, "*Posse quidem voluntatem cogi, sed non naturam, quæ semel irritata pensi voluptate ferverescit, rationis, et voluntatis sensum amittens.*"† The English law anciently appears to have considered pregnancy as destroying the validity of the accusation. Dalton quotes Stamford, Button and Finch, in favour of this opinion, but later writers, and in particular, Hawkins and Hale, question its correctness, and deny its being law.‡ "It was formerly supposed," says East, "that if a woman conceived, it was no rape, because that showed her consent; but it is now admitted on all hands, that such an opinion has no sort of foundation either in reason or law."§

A few words are necessary on the *crime against nature*, and they may be properly introduced here. It may be required to examine the individual on whom it has been committed. If without consent, inflam-

* Bartley, p. 43. The scope of his argument is, that the depressing passions, such as fear, terror, &c. will prevent the necessary orgasm from occurring. Farr intimates a similar opinion, (p. 43.) And so does Meierius, the editor of Brendel, (Note, p. 99.) Those who entertain the belief maintained in the text, are Capuron, p. 57; Foderè, 4, p. 369; Metzger, p. 257, 486.—"Dr. Good," say the editors of the Quarterly Journal of Foreign Medicine and Surgery, vol. 5, p. 97, "thinks it possible, though not very likely, that impregnation should succeed to rape." I will here express my regret at not being able to obtain the great work of the last author in time for using it in the present treatise. I have no doubt that it contains many facts of which I might properly avail myself.

† Foderè, 4, p. 369.

‡ Burn's Justice, Art. Rape.

§ East's Crown Law, vol. 1, p. 445.

mation, excoriation, heat and contusion will probably be present. The effects of a frequent repetition of the crime, are a dilatation of the sphincters, ulcerations on the parts, or a livid appearance, and thickening. It has been suggested, that secondary symptoms of lues might be mistaken for these, but I am hardly of this opinion. No man, however, ought to be condemned on medical proofs solely. The physician should only deliver his opinion in favor or against an accusation already preferred.*

The punishment of this crime has always been signal. Death was prescribed by the Jewish and Roman laws, and is still by the English, and where both consent, provided the one on whom it is committed is above the age of fourteen, both are punished. In this state, it was also formerly made capital, but now is changed to imprisonment for life.

CHAPTER VI.

PREGNANCY.

1. Laws of various countries concerning the presence of pregnancy in civil and in criminal cases.—2. Signs of real pregnancy. Uncertainty to which they are liable. Quickening—explanation of it. Impropriety of relying on any single proof of pregnancy. Concealed pregnancy. Moles. Hydatids. Pretended pregnancy.—3. Superfoetation. Cases which are deemed instances of it—explanation of them by the opponents of this doctrine. Its application in legal medicine.—4. Whether a female can become pregnant without her knowledge, and remain ignorant of it until the time of labour. Cases in which this has been deemed possible.

Few questions occur in legal medicine, of greater importance than the one we are about considering. On its proper decision may depend the property, the

honour, or the life of the female. It will probably lead to a better understanding of this subject, if we notice,

1. The laws of various countries relating to the presence of pregnancy.

2. The signs of real pregnancy, together with the best mode of ascertaining concealed or pretended pregnancy.

3. The arguments and proofs in favour, and against the doctrine of superfœtation ; and,

4. Some questions arising out of the previous examination.

I. *Of the laws of various countries which relate to the presence of pregnancy.*

The Roman law exempted a condemned female from punishment, if she was pregnant, until after her delivery—" *quod prægnantis mulieris damnatæ pœna differatur quoad pariat.*"

There are two cases in the English or common law, which may require a knowledge of the signs of pregnancy. One is a proceeding at common law, "where a widow is suspected to feign herself with child, in order to produce a suppositious heir to the estate. In this instance, the heir presumptive may have a writ *de ventre inspiciendo*, to examine if she be with child or not ; and if she be, to keep her under proper restraint, until delivered. But if the widow be, upon due examination, found not pregnant, the presumptive heir shall be admitted to the inheritance, though liable to lose it again, on the birth of a child within forty weeks from the death of a husband."*

* The interest that cases of this nature sometimes occasion, and the precautions that have been taken in England, may be learned from the following report. Sir Francis Willoughby died, seised of a large inheritance. He left five daughters, (one of whom was married to Percival Willoughby,) but not any son. His widow at the time of his death, stated that she was with child by him. This declaration was evidently one of great moment to the daughters, since if a son should be born, all the five sisters would thereby lose the inheritance descended to them. Percival Willoughby prayed for a writ *de ventre inspiciendo*, to have the widow examined ; and the sheriff of London was accordingly directed to have her searched by twelve women, &c. Having complied with this order, he returned that she was

The other instance is in accordance with the Roman law, as quoted above. When a woman is capitally convicted, and pleads her pregnancy, though this is no cause to stay the judgment, yet it is to respite the execution till she be delivered. "In case this plea be made in stay of execution, the judge must direct a jury of twelve matrons, or discreet women, to ascertain the fact, and if they bring in their verdict, *quick with child*, (for barely, *with child*, unless it be alive in the womb, is not sufficient) execution shall be staid generally till the next session, and so from session to session, till either she is delivered, or proves by the course of nature not to have been with child at all."*

Foderè and Capuron appear to have examined every law in the French code, which has a bearing on this subject. The civil code, sect. 185, declares, that no female shall be allowed to contract marriage before the age of fifteen full years. Nevertheless, such marriage shall not be dissolved, 1, when six months have elapsed after the female, or both of the parties, have attained the required age; and 2, *when the female, although not of the required age, has be-*

twenty weeks gone with child, and that within twenty weeks, *fuit paritura*. "Whereupon another writ issued out of the common pleas, commanding the sheriff safely to keep her in such an house, and that the door should be well guarded; and that every day he should cause her to be viewed by some of the women named in the writ, (wherein ten were named,) and when she should be delivered, that some of them should be with her to view her birth, whether it be male or female, to the intent there should not be any falsity. And upon this writ, the sheriff returned, that accordingly he had caused her to be kept, &c. and that such a day she was delivered of a daughter." *Croke's Elizabeth*, p. 566. See also, in the matter of Martha Brown, *ex parte* Wallop, in Brown's Chancery Cases, 4, p. 90, and *ex parte* Aiscough, Peere Williams' Reports, 2, p. 591.

* Blackstone, 4, p. 394, 395. There is another case where the court has interfered on the proof of the existence of pregnancy being brought before it, and that is, where a female in this situation is imprisoned. Thus in the case of Elizabeth Slynbridge, (*Croke's James*, 358,) "upon suggestion that she had been imprisoned for divers weeks, and was with child, and would be in danger of death, if she should not be enlarged," Sir Edward Coke, the chief justice, admitted her to bail, to prevent the peril of death to her and her infant; and in giving his opinion, he cites a similar case, which happened in the 40th of Edward III. The editor remarks, that *these cases are cited as extraordinary instances*. The last case is mentioned in Coke Littleton, 289, a. The record states, "*Quia eadam Elena pregnans fuit, et in periculo mortis, ipsa dimittitur per manucaptionem, &c. ad habendum corpus, &c.*"

come pregnant before the expiration of six months. The penal code, sect. 27, also declares, that if a female condemned to die, states that she is pregnant, and if it be proved that she is so, she shall not suffer punishment until after her delivery. Several other laws are mentioned, which, by implication, may be referred to this subject, but it is not necessary to state them. The above are the important ones now in force in France. I may, however, add, that the law last quoted was in existence, and had been acted upon since the year 1670, in that country.†

II. *Of the signs of real pregnancy, and of concealed and pretended pregnancy.*

In the ordinary practice of medicine, but little difficulty ever occurs in ascertaining the presence of pregnancy. The female, when she consults a physician, is frank in her avowal of the symptoms present, and from her narrative, an opinion sufficiently accurate can generally be formed. The reverse, however, takes place in legal medicine. Here, pregnancy may be CONCEALED by unmarried women, and even by married ones under certain circumstances, to avoid disgrace, and to enable them to destroy their offspring in its mature or immature state. It may also be PRETENDED, to gratify the wishes of relatives—to deprive the legal successor of his just claims—to extort money, or to delay the execution of punishment.

Neither of these can be properly investigated, without recurring to the signs of real pregnancy, and this remark deserves particular notice, since, with all the light that modern science affords, serious errors have notwithstanding been committed. The female has an

† Foderè, 1, p. 321 to 432. A law, passed on the 23d Germinal, year 3, (1795) was still more mild in its provisions. It prescribed, that no woman accused of a capital crime, *should be brought to trial, until it was properly ascertained that she was not pregnant.* In conformity with this, the court of cassation reversed several decisions of inferior criminal courts, where it appeared that the female had not been properly examined; and it seems, indeed, that they demanded proof, that in such cases the examination had always been made. (Ibid. p. 428 to 431.) This is probably abolished, as no mention is made of it in the code now in force.

interest, and a wish to deceive the examiner, and her testimony, which, in ordinary cases, is so much relied on, is here suspicious, or not to be credited.

Mahon has suggested a useful division of the signs of pregnancy, viz. those which affect the system generally, and those which affect the uterus.*

The changes observed in the system from conception and pregnancy, are principally the following: increased irritability of temper, melancholy, a languid cast of countenance, nausea, heart-burn, loathing of food, vomiting in the morning, feverish heat, with emaciation and costiveness, occasionally depravity of appetite, a congestion in the head, which gives rise to spots on the face, to head ache, and erratic pains in the face and teeth. The pressure of increasing pregnancy sometimes occasions varicose tumours, or anasarcaous swellings of the lower extremities. The breasts also enlarge, an areola, or brown circle, is observed around the nipples, and a secretion of lymph, composed of milk and water, takes place.

All of these do not occur in every pregnancy, but many of them in most cases.†

The changes that affect the uterus, are—a suppression of the menses. These cease returning at their accustomed period.—An augmentation in the size of the womb. This is not perceptible until between the eighth and tenth week. At that time, the the foetus, with the surrounding membranes, and the waters contained in them, so enlarge it, that it may be felt lower down in the vagina than formerly; nor does it ascend, until it becomes so large as to arise out of the pelvis; and this is accomplished at about the fourth month. In the intermediate space, an examination *per vaginam*, will discover the uterus to be heavier and more resisting; and by raising it on the

* Mahon, 1, p. 142.

† Denman, chap. 7. Foderè, 1, p. 434, &c. Dr. Denman observes, that much regard should be paid to the navel in cases of doubtful pregnancy. It emerges in real cases, until it comes to an even surface with the integuments of the abdomen, (p. 227.) Mahon, however, remarks, that in many cases of dropsy, the same appearance is seen. (Vol. 1, p. 155.)

finger, this indication will be particularly remarked between the third and fourth months. The enlargement continues—it becomes visible, and at the seventh month the uterus is as high as the umbilicus, and at the eighth, as the pit of the stomach. A short time before delivery, it somewhat subsides. About the middle of the pregnancy, or between the seventeenth and twenty-second week, the female feels the motion of the child, and this is called *quickenings*. Its variations as to time will be hereafter noticed. The vagina is also subject to alteration, as its glands throw out more mucus, and apparently prepare the parts for the passage of the foetus.

These, as now stated, are the signs of pregnancy usually enumerated. It would not, however, be doing justice to the subject, if the reader were left to suppose that all or most of them are the invariable attendants on pregnancy. Some may accompany diseases; others may be altogether wanting in a state of true pregnancy. It will, therefore, be proper to examine the more important signs in detail.

1. *Of the expansion or enlargement of the abdomen.* This sign is not visible during the first months; and after that period, it may be concealed for a length of time by various means, such as the peculiar disposition of the dress, and the confinement of the abdomen by stays. Formerly, fashion lent its aid to this deception. As early as 1563, satires were written in France on the articles of dress that were used to increase the size of the female figure, both before and behind; and in 1579, in the reign of Henry III. they were in general use. Cotemporary writers considered them, and not without great reason, as subservient to, and productive of great depravity in manners, and particularly for the concealment of pregnancy.* Another circumstance that may lead to error, is the variety that exists with respect to corpulence. This, in some instances, conduces to render the question doubt-

* British Critic, 7, p. 539.

ful. Waiving these, however, we observe, that this sign is generally observed at the end of the fourth month. It then remains to enquire whether the enlargement is the result of disease, or of pregnancy. If the former, it may originate from suppression of the menses, tympanites, dropsy, or schirrosity of the liver and spleen. In tympanites, however, the abdomen is hard and elastic, and sounds like a drum when pressed; and there are irregular elevations, which appear to roll under the finger. Dropsy, also, when not encysted, is characterized by its peculiar symptoms; and schirrosity, by its indurated and unequal swelling. All these diseases, if the observer exercises patience and judgment, may be distinguished from pregnancy.* Encysted dropsy will be understood with more difficulty, as no fluctuation will be observed; and the best advice probably is, to mark the symptoms, as they daily become more aggravated in this disease, while the slighter affections of pregnancy generally wear off.† Even if we have settled that there is a tumour of the uterus present, it is not certain that it is caused by a foetus. It may arise from a mole, from hydatids in the uterus, or from a schirrous state of that organ.—These remarks sufficiently prove, that enlargement of the abdomen is a sign of little importance in determining the question of pregnancy. It should always be noticed, but never relied on.‡

* Mistakes have, however, been made by eminent men, with respect to dropsy. A case of uterine dropsy is mentioned in the *Phil. Trans.* vol. 18, p. 20. There was a determination of fluids to the breasts, and the menses were suppressed. The female, however, went past her time, continued enlarging, and finally died. The disease was found on dissection. Encysted dropsy was also mistaken for pregnancy by Tulpus, and other eminent men. (*Phil. Trans.* 9. p. 131.)

† An instructive case, shewing the doubts which envelope some cases of suppression of the menses, and the equivocal symptoms to which it gives rise, is related by Dr. Dewees in *Chapman's Journal*, vol. 4, p. 126.

‡ If an examination at this early period of pregnancy be deemed necessary, the following directions of Foderè and Mahon should be observed. Empty the intestinal canal, and let the female lie on her back, with the knees a little elevated, so as to prevent any tension of the abdomen. If the woman be not too fat or deformed, the uterus may be felt through the parietes of the abdomen, by applying the extended hand over the middle of the hypogastrium, so that the thumb touches the navel, and the small finger

2. *A change in the state of the breasts*, has by many been considered as a sign. They are said to become larger, while the areola round the nipples is of a brown colour; and this is accounted for on the principle of revulsion—the blood, after the cessation of menses, being determined upwards, in consequence of the connexion that subsists between the breasts and uterus. It is, however, a fallacious proof. Suppression of the menses may also cause it; and it is not universally present in real pregnancy.* Even the appearance of milk, which is so common towards the latter stages, may be unattended with pregnancy. Hebenstreit states, that he has known females in whom this fluid was produced by repeated friction, suction, &c.† A servant girl, says Belloc, slept in a room with a child whom it was wished to wean. Being disturbed in her repose by its cries, she imagined that by putting it to her breasts, it might be quieted. In a short time she had milk sufficient to supply its wants.‡ An account is also given in a MS. in the collection of Sir Hans Sloane, of a woman at the age of 68, who had not borne a child for more than twenty years, nursing her grand-children, one after another.|| Similar cases are mentioned by Foderè; and in particular, he relates an instance of a female, who, on the point of being conducted to prison, declared herself a nurse. Although this was a falsehood, yet in a few moments she produced the requisite proof. The author also suggests, that immediately after the cessation of the menses, milk is often secreted.§

the pubis. On her making an expiration, the enlarged uterus may be felt, hard, and of a spherical form. If these be present, they *indicate an increase in size of the uterus, but not the cause of it.* (Foderè, i, p. 443. Mahon, i, p. 149. See also Smith, p. 485.)

* Denman, p. 227.

† Hebenstreit, p. 185.

‡ Belloc, p. 70.

|| Smith, p. 484. In the Phil. Transactions, similar cases are related. One grand-mother at sixty, suckling her grand-child, (vol. 9, p. 100;) and another at sixty-eight, suckling two grand-children. This last was seen by Dr. Stack, who relates the case. (Vol. 41, p. 140.)

§ Foderè, i, p. 440. Dr. Francis, in his edition of Denman, gives the following case on the authority of Professor Post. "A lady of this city (New-York) was almost fourteen years ago, delivered of a healthy child, after a natural labour. Since that period, her breasts have regularly secreted milk in great abundance, so that, to use her own language, she could

3. *The suppression of the menses.* This may take place from disease, without the presence of pregnancy; and again, it is asserted, that the menses have continued in certain cases during pregnancy. Dr. Denman and others, however, conceive that this symptom is a never failing consequence of conception, and the former in particular, intimates, that a contrary opinion has its origin in credulity or vanity. It is certainly a strong argument, that an individual of the extensive practice of this accoucheur, never met with a case invalidating the rule; but it is no less true, that observers of equal eminence, have occasionally witnessed deviations from it. Dr. Heberden knew a female who never ceased to have regular returns of the menses during four pregnancies, quite to the time of her delivery.* Deventer mentions of one who became pregnant before menstruating, and immediately after conception, this discharge returned periodically until her delivery, and this was the case during several successive pregnancies—inverting, as it were, the usual order of nature.† Dr. Francis states, that Dr. Hosack had a patient, who, during her last three pregnancies, menstruated until within a few weeks of her delivery, and, notwithstanding, brought forth a healthy child at each labour.‡

As to the diseases which produce suppression, but few remarks need be made. They are soon characterised by symptoms with which the practitioner is

at all times easily perform the office of a nurse. She has uniformly enjoyed good health; is now about thirty-five years of age, and has never proved pregnant a second time, nor had any return of her menses." (Denman, p. 229.)—Even men are said to have suckled children. Thus the bishop of Cork relates a case in the Phil. Transactions, where the father had fed his child in this way. (Vol. 41, p. 810.) He examined the breasts, and found them very large. It does not appear, however, that he saw the act itself.

* Heberden's Commentaries. See also Haller, vol. 7, part 2, p. 142, for references to cases of a similar nature. A remarkable case is mentioned by Dr. Francis in the New-York Med. and Phys. Journal, vol. 2, p. 14.

† Foderè, 1, p. 437.

‡ Francis' Denman, p. 231. Dr. Francis also mentions a case in his own practice. Capuron observes on this sign, "Quelquefois l'écoulement périodique des menstrues dans le premier mois, même pendant tout le temps de la grossesse." (Page 63.)—Belloc, p. 62, makes a similar remark. Those who deny the presence of the menses, consider the discharge as a hæmorrhage from the vagina.

familiar. Cases may, however, occur, as mentioned in a former chapter, (page 56,) where the menstrual fluid is confined by a substance closing the vagina. This produces enlargement, and several other suspicious appearances. It is proper, therefore, to recollect that such a condition of the parts is possible.

I will add in this place, principally for the purpose of citing a case from Belloc, that pregnant females may feign menstruation by staining their linen with blood. This deception was attempted on him by a girl three months advanced.*

Notwithstanding the exceptions now stated, we should attach great importance to the absence of the menses as indicating pregnancy, and the remarks of Belloc on this point, are deserving of great attention. "When a female experiences the suppression, along with other symptoms of pregnancy, we may consider her situation as yet uncertain, because these signs are common to amenorrhœa and pregnancy. But if, towards the third month, while the suppression continues, she recovers her health, and if her appetite and colour return, we need no better proof of pregnancy. Under other circumstances, her health would remain impaired, and even become worse."†

4. I merely notice *loss of appetite, nausea, vomiting, &c. &c.* to state that they are altogether equivocal. They accompany many diseases—are wanting in many pregnancies, and even if present, occur in the early stages, the time precisely when no certain judgment can be formed.

5. Another sign that has been depended on, is the *motion of the fœtus in the womb of the mother*. It is wanting in the early months of pregnancy, but during the latter ones, may generally be ascertained. This sensation, however, which in real pregnancy, the female always mentions at an early period, is of course not spoken of in concealed cases, and it remains with

* Belloc, p. 65. "Il faut exiger alors que parties soient lavées avec de l'eau tiède ; si le sang ne reparait pas, le cas est suspect." Capuron, p. 81.

† Belloc, p. 60. Smith, p. 485.

the examiner to discover it by other means. To this end, he dips his hand in cold water, and applies it suddenly over the region of the uterus. If the fœtus is alive, its motion will be felt, except, according to authors, where it is very feeble, or where the woman is dropsical. But unfortunately, this sign is not infallible, the fœtus may be dead, or there may be twins, in which case the motion is sometimes not felt until a late period. On the other hand, flatus in the bowels, nervous irritation,* or a mole in the uterus, has been mistaken for it. A case, showing the uncertainty of its occurrence, is related by Capuron. A female, with a very large abdomen, was received into one of the hospitals of Paris. She was visited by many distinguished accoucheurs, surgeons and physicians. Some declared that she laboured under ascites—others, that a schirrous and dropsical ovary was present. An abdominal pregnancy was also suspected, but no one believed it to be real pregnancy, since no motion of the fœtus could be felt. The woman was kept on light food, and innocent remedies were administered. The volume of the abdomen enlarged, and at last, after three weeks of examinations and consultations, a strong and healthy child was born.†

This motion of the fœtus, when felt by the mother, is called QUICKENING. It is important to understand the sense attached to this word formerly, and at the present day. The ancient opinion, and on which indeed the laws of some countries have been founded, was, that the fœtus became animated at this period—that it acquired a new mode of existence. This is altogether abandoned. The fœtus is certainly, if we speak physiologically, as much a living being immediately after conception, as at any other time before delivery; and its future progress is but the development and increase of those constituent principles which it then received. The next theory attached to

* Many of the French writers on midwifery speak of a "*fausse grossesse nerveuse*."

† Capuron, p. 73. 74.

the term, and which is yet to be found in many of our standard works, is, that from the increase of the fœtus, its motions, which hitherto had been feeble and imperfect, now are of sufficient strength to communicate a sensible impulse to the adjacent parts of the mother. In this sense, then, quickening implies the first sensation which the mother has of the motion of the child which she had conceived.*

A far more rational, and undoubtedly more correct opinion, is that which considers quickening to be produced by the *impregnated uterus starting suddenly out of the pelvis into the abdominal cavity*. This explains several peculiarities attendant on the phenomenon in question—the variety in the period of its occurrence—the faintness which usually accompanies it, owing to the pressure being removed from the iliac vessels, and the blood suddenly rushing to them; and the distinctness of its character, differing, as all mothers assert, from any subsequent motions of the fœtus. Its occasional absence in some females is also readily accounted for, from the ascent being gradual and unobserved.†

This subject will again be noticed in the chapter on Abortion. At present, it will be sufficient to remark, that considerable variety occurs as to the *time* of quickening. Dr. Denman observes, that it happens from the tenth to the twelfth week, but most commonly about the sixteenth, after conception. Again, Puzos, a celebrated continental accoucheur, says, that it takes place at the end of two months, but most commonly at the expiration of eighteen weeks. Hydropic women, he adds, do not observe it until the sixth or seventh month.‡ And in a late trial for abortion in England, the medical witness deposed, that it

* See Denman, &c.

† Mr. Royston appears to have been the first that satisfactorily developed this opinion to the public, although he gives the credit to Dr. H. S. Jackson, of originally advancing the idea. See his paper, copied from the London Med. and Phys. Journal, in the Eclectic Repertory, vol. 3. p. 25. Writers on midwifery are embracing this opinion. See Conquest, p. 38; and also Hogben, in London Med. Repository, 1, p. 146.

‡ Foderè, 1, p. 446.

took place at eighteen weeks, sometimes in fourteen, and sometimes not till twenty weeks, but mostly at eighteen. That he never knew it so late as twenty-five, though it might happen in some cases, at twenty-one or two.*

This discordance in the observations of physicians is readily explained, by recurring to the cause just now assigned. And we may reasonably suppose that the motion in question will be soonest felt when the developement has been most rapid. The practical deduction respecting it, in a case of supposed pregnancy, is not to pronounce a female unimpregnated, because it cannot at once be felt. The examination should be frequently repeated, before a decisive opinion be given.

6. The last sign that I shall notice is an *alteration in the state of the uterus*; and this is ascertained by what is called the *touch*. It is founded on the following physiological facts. After conception, the fundus and body of the uterus both increase, and the former, from its becoming heavier, will naturally descend lower down in the pelvis, and thus project farther into the vagina. The uterus remains in this situation until it become so large as to rise out of the pelvis; and accordingly, this temporary abbreviation of the vagina, is a sign of pregnancy, though, of course, an equivocal one. The body of the uterus also enlarges, and the neck of it becomes shorter, and finally is completely effaced. During the period that this is taking place, and which is generally the fifth, sixth and seventh months, the vagina is more elongated, since the uterus rises further up. It gradually descends towards the period of delivery. The os uteri also varies with the changes in the cervix. The lips gradually flatten and disappear, and towards delivery, a small rugous hole only is discoverable.†

Now with a knowledge of these facts, we may pro-

* Edinburgh Med. and Surg. Journal, 6, p. 248.

† Denman, W. Hunter, Burns. The os uteri is also found closed with a gelatinous matter.

ceed to an examination, to ascertain their presence. Having evacuated the bladder and intestines, the female is laid in such a position, that the muscles of the abdomen may be in a state of relaxation. The fore and middle fingers of the right hand are then introduced into the vagina, whilst the abdomen is to be felt with the left. The orifice of the uterus, its neck and body, are then examined, and having hold of the uterus, it is gently moved, until motion is perceived.*

This investigation, it will be perceived, elucidates the state both of the womb and of the fœtus. It is certainly one of the most unequivocal modes of ascertaining pregnancy. But it requires long habit to become expert at it, and this, few practitioners will have an opportunity of obtaining. The most distinguished accoucheurs have been, and probably will continue to be deceived with it. Of this, the works of Mariceau and Baudelocque bear testimony, and Foderè relates a case which should make every physician distrust his skill. In a hospital where he attended, a female was detained on suspicion of being pregnant. Several medical persons visited and examined her. Some declared, that she was in the eighth month of pregnancy, whilst others denied that she had ever conceived. She was kept in the hospital during a whole year, and was then dismissed as large as ever.†

There are also some varieties in the conformation of parts that render this sign useless, or unavailable. The neck of the uterus is oftentimes seated very low, both in married and unmarried females, while in others, it is almost out of reach. Moles and hydatids also produce an increase in the volume of the uterus, and an examination by the touch, may give an impression very similar to that of a child contained in it. But above all, the value of it is diminished, from the fact, that it can be made with most readiness at the early stages of pregnancy, when the uterus is low

* Foderè, 1, p. 450. Smith, p. 485.

† Foderè, 1, p. 451.

down, while at the seventh month, the uterus has risen high up, and can be examined with much greater difficulty. It can thus be applied with greater certainty of success only at periods, when our opinions at the best must be doubtful.

The result to which we have now arrived, will probably appear to many readers as an extraordinary one. But it is no less correct, and the distinction is the following. In ordinary life, the existence of pregnancy is readily known and observed. The cases in which females have made mistakes on this point are few, and those few, from the fear of ridicule, are studiously concealed. We are hence led to form an opinion, that nothing can be more readily known than this. But the case is altered, when a medical witness is called upon to prove its existence on oath.* He is then bound to weigh all the *possible causes* that may produce these various symptoms, and he is to recollect that all of them have occasionally proved equivocal. *There is no one invariable sign of pregnancy*, and it is probably well that there is not.† It will teach the physician that delay is all-important—that before deciding, his examinations should be frequently repeated, and that an opinion should seldom be hazarded before the end of the sixth month. When it is recol-

* Mary Heath was tried before the court of king's bench in Ireland, for perjury in the great Annesley cause. The object of this cause was to ascertain whether James Annesley was the son of Lord Altham. On the trial of Mary Heath, Dr. Samuel Jemmat, an aged and respectable practitioner, testified that he had formerly been consulted by Lady Altham, and found her with child. She had all the usual symptoms. One of the counsel asked him, "Upon your oath, sir, are there any rules in your profession, by which a pregnancy can be discerned from a tympany, or any other like disorder?" *Answer.* By virtue of my oath, *that question would puzzle not only the colleges of physicians of England and Ireland, but the Royal Society too.* Jury. Is there such a thing as a false conception? *A.* Very often, a mola, there is. Q. Are the symptoms the same? Have women grown big with a false conception? *A.* They have done it."—Hargrave's State Trials, vol. 9, p. 463.

† "Concludamus ergo, ex prædictis; quod certa prægnantiæ cognitio ex nullis signis indubitato haberi potest, sed bene conjecturalis ac dubia; nullum enim signum tam proprium prægnantiæ habemus, quod ex aliqua præternaturali causa originem haberi non possit." Zacchias, vol. 1, p. 90.—"Toute notre sagacité, mise en œuvre, ne peut nous fournir aucun signe invariable que détermine l'existence du fœtus dans la matrice." (Mahon, 1, p. 141.) "The verification of the pregnant state cannot depend on the importance due to any particular sign. It must depend on the existence of several." (Smith, p. 484.) See also Foderè, 1, p. 433. Capuron, p. 81.

lected that he may have the life of a fellow being and her property at his disposal, surely he will not desire to be in haste on so important a subject.*

Intricate then as this subject is, and as it has been our object thus far to show, we must not, however, proceed to an opposite extreme, and abandon these signs as altogether uncertain. The cases where, by our laws, the physician is called upon to examine, are precisely those in which delay can only cause temporary injury as to property, and it may prolong life, even if guilty—and he should therefore give an opinion for or against the *probability* of the existence of pregnancy. He is therefore justified, in cases where it is supposed to be concealed, in giving a strong opinion in favour of it, *when the menses are suppressed, and the patient continues in good health ; when the abdomen gradually enlarges, the breasts increase in size, and the areola around them becomes dark-coloured ; and when, on examination, the motion of the fœtus is perceived, and the neck of the uterus is found diminishing, and its orifice thin.* The combination of these symptoms is calculated to prevent that error to which the study of a single one might lead.†

A few remarks are here necessary with respect to *extra-uterine pregnancy*. The early symptoms of it are generally the same as in common gestation—the

* Cases are said to be mentioned by various writers, as Ambrose Paré, Mariceau, &c. where female criminals have been executed on the decision of examiners, that pregnancy was not present ; and notwithstanding a fœtus has been found after death. The following, from Deveau, is a melancholy example. In November, 1655, in France, several midwives examined a female under sentence of death, and deposed that no sign of pregnancy was present. She was executed ; but on dissection, a fœtus, of the third or fourth month, was discovered. The midwives were severely admonished by the magistrates : and it was decided, that whenever a female declared herself pregnant, her punishment should be delayed for a sufficient length of time to determine the certainty of the fact. (Foderè, 2, p. 444.)

† It has been lately announced, that pregnancy may be discovered by *auscultation* ; and that the operation may be performed either by applying the ear to different parts of the abdomen, or by using the *stethoscope* of Laennec. The discovery does not appear as yet sufficiently matured. Some interesting particulars concerning it may be found in the *New-England Journal*, vol. 11, p. 426 ; the *Journal of Foreign Science*, vol. 2, p. 706 ; and the *Quarterly Journal of Foreign Medicine and Surgery*, vol. 4, p. 371.

abdomen and uterus enlarge, the menses are suppressed, the breasts increase in size, and very often the child quickens at the proper time, but is more felt on one side than on the other. On examination, however, the uterus is not found, after the middle of pregnancy, to take on those changes in its body and neck, which we have before described. Severe pain is also not an uncommon attendant of these cases. At the end of eight, nine, or ten months of gestation, appearances of labour come on, and continue for a longer or shorter period of time; the motions of the child cease, and milk is secreted. The case terminates sometimes in death, from the irritation produced; sometimes the foetus is voided by the natural passages, while again it will remain in the abdomen for years, without affecting the health.*

Should the physician, as a medical jurist, suspect the presence of a case of this kind, he can do nothing more than desire a delay until the supposed termination of the gestation. The proofs are not so infallible, but that a foetus in utero may possibly be present.

The most difficult case of concealed pregnancy that probably can occur, is when it is accompanied with ascites. The motion of the foetus cannot be perceived; and it is also added by Foderè, that the uterus does not take on its ordinary development. Yet many cases are on record, where females with this disease on them, have been delivered of healthy children. In suspected cases, the practitioner should weigh the symptoms, and ascertain whether they are all referable to the disease—his medicines should be mild, and patience exercised as to the event.†

In the sketch now given, of the signs of real pregnancy, most of the remarks are directly applicable

* A very full collection of references to cases of extra-uterine pregnancy, will be found in the notes to Burns' Midwifery. Additional ones are mentioned in Foderè, 1, p. 453 to 459; and in the Phil Trans. *passim*.

† A memoir by Scarpa, on *pregnancy accompanied by ascites*, is published in the Quart. Jour. For. Med. and Surg. vol. 1, p. 249. This distinguished surgeon performed the operation with success in a case related by him. The children (it was a twin case,) died, however, in a few seconds after delivery.

to concealed or pretended cases. With respect to the latter, I may observe, that in addition to the circumstances already enumerated, the following should also be noticed. 1. *The age of the individual.* No female can be impregnated in our own climate under the age of thirteen, nor above that of fifty, provided she has been previously barren. There are exceptions to this, but it is correct as a general rule.*—Again, impregnation is supposed to depend on menstruation; and this last, in fact, constitutes in every country the state of puberty. There are, however, cases on record, where females have become pregnant without ever menstruating. Sir E. Home, in the *Philosophical Transactions* of 1817, mentions the case of a young woman who married before she was seventeen, and although she had never menstruated, became pregnant. Four months after her delivery, she became pregnant a second time; and four months after the second delivery, she was a third time pregnant, but miscarried. After this, she menstruated for the first time, and continued to do so for several periods, and again became pregnant.† 2. We should ascertain, whether any of the causes of sterility, as already enumerated, be present. 3. Women often fancy themselves pregnant when the menses cease. This great change in the system often produces en-

* Many cases of births in advanced age are on record. See Capuron, p. 93 and 98. The succession to an estate was disputed in France, because the mother was fifty-eight years old when the child was born. It was decided in favour of the applicant, because similar instances are mentioned by ancient and modern writers. Smith, p. 493, mentions cases of early and late fecundity. I quote the following, because it happened lately. "May, 1816, Mrs. Ashley, wife of John Ashley, grazier, of Firsby near Spilsby, at the age of 64, was delivered of two female children, which, with the mother, were likely to do well." *Edinburgh Annual Register*, vol. 9, part 2, p. 508.

† Francis' Deaman, p. 174. See Foderè, 1, p. 396; Capuron, p. 96, for similar cases. Also Moseley on Tropical Diseases, p. 103, 104. "Ego habui amicam laudabilis temperamenti et complexionis, quæ octo filios tulit consequenter, id est, omni anno unum, nunquam tamen visa una gutta sanguinis menstrui." (Low, p. 523.)—Impregnatio nullis unquam præviis menstruis. (Stalpart, vol. 2 Obs. 31.)—A case is also mentioned by Prof. James of Philadelphia, of a female who had not menstruated for nearly two years before her pregnancy. (Hosack's Med. and Phil. Register, vol. 4, p. 422.) See also New-York Med. and Phys. Journal, vol. 2, p. 13; and Eclectic Repertory, vol. 2, p. 119.

largement of the abdomen, nausea, and the breasts fill with a milky fluid. Caution is necessary in such cases, in giving a decided opinion; and Van Sweiten mentions two instances which teach a valuable lesson. A female had a son when she was twenty-five years of age; twenty years after, she declared herself pregnant the second time. This was disbelieved by all, but it was verified in due season. Again, a female had been delivered of fourteen children, and might hence be supposed to be well acquainted with the signs of pregnancy. After the birth of the last child, the menses ceased for eight years; and at the end of this time, she supposed herself again pregnant; but a few months reduced her size, and showed that she had been mistaken. 4. There are various substances or fluids formed in the uterus, which cause the female to imagine that she is in this state. Of this description are moles and hydatids.

The term *mole* does not appear to be very accurately defined. I shall understand by it, a fleshy substance contained within the cavity of the uterus—enveloped in a membrane, and generally filled with blood, although occasionally dry. On cutting into it, various parts, resembling an imperfect fœtus, will be observed. The symptoms produced, are at first very similar to those of pregnancy. The stomach is affected, and the breasts and belly enlarge. The latter, however, increases much faster, and is softer and more variable in size than in real pregnancy. It is sometimes as large at the second month, as in the fifth, of perfect conception. The duration of this is uncertain; but it generally comes away at the third or fourth month, although in some cases it has not been evacuated until the sixth or seventh, and it is even said to have been retained for years.*

* A case came before the parliament of Paris in 1781, in which the female sued for damages, for seduction. Twenty months after this was alleged to have been committed, she brought forth a mole. The parliament very properly decided against her, on the score of character; but they added, what may be questioned under the present acceptation of the term, *that unmarried females, and even nuns have discharged moles, without any previous criminal connexion.* Foderè, 1, p. 477.

This term has also been applied to those coagula, which not unfrequently accompany the process of menstruation, and which appear to have remained so long in the uterus, as to have retained the fibrous part of the blood only. Many unmarried females discharge these, and they should be accurately distinguished from the former. The one is to be deemed the product of conception,* and the other not. And these bloody coagula are wanting in the characteristics of a true mole, viz. the fleshy texture, and the enveloping membrane.

We have already remarked, that a true mole may be mistaken for real pregnancy during some months. By however attending to the following circumstances, the difficulty may in some degree be solved. The early and rapid increase in size of the uterus—the sensation of pressure, which often produces pain, and the want of motion when examining the uterus. This last, however, is seldom applicable, since the investigation is usually made in the early stages. Foderè adds, that the breasts are not filled with a milky, but with serous fluid, and that the female often experiences violent convulsive motions in her abdomen.† Occasional discharges of blood *per vaginam* during the gestation of the mole, are not uncommon.

Hydatids, or dropsy of the uterus, which I shall consider as synonymous,‡ are generally supposed to proceed from coagula of blood, or from portions of the

* “ True moles are distinguished from the false, and other growths of the uterus, by their not deriving their origin from the substance of the womb, or its membrane; but by their being always the consequence of conception.” Voigtel’s *Pathological Anatomy* in *Edinburgh Med. and Surg. Journal*, vol. 11, p. 99.—“ It is the opinion of many, that these substances are never formed in the virgin state, and no case that I have yet met with contradicts the supposition.” (Burns, p. 79.)—See Denman, p. 149. Candour, however, obliges me to add, that some writers believe they may occur in chaste females. Smith, p. 298. Mahon appears to doubt their existence. Stalpart (vol. 1, *Observ.* 73,) relates some curious cases.

† Foderè, 1, p. 469.

‡ See Denman, p. 148; and the opinions of Drs. Baillie and Sprengel, quoted by Dr. Francis in favour of this belief. Dr. James, professor of midwifery in the university of Pennsylvania, has advocated a similar opinion. *Eclectic Repertory*, vol. 1, p. 499. Jno. Burns, (chap. 10, Note 62.) however, considers them distinct diseases.

placenta, degenerated during the process of pregnancy. There is, however, no doubt, that they are occasionally an original production of the uterus. It is not necessary to proceed to a minute description of them; but we may observe, that usually these watery vesicles hang together in clusters, occupy a considerable space, and produce a corresponding distention. Their early symptoms are those of pregnancy.* The tumour of the abdomen, however, does not correspond to the supposed period, nor does the state of the uterus;§ and at the accustomed time no motion is felt by the mother. There is more or less of disease of the system present, as this gestation advances, contrary to what occurs in real pregnancy. There is no certain time for their discharge. Often, however, they do not come away, until some period after real pregnancy would have been accomplished. Their expulsion is attended with pain, often of the severest kind, and occasionally with hæmorrhage.† An instructive case is related by Dr. Eights, where the female conceived herself pregnant, but felt no motion, and at the end of eight months, was seized with pain, and occasional watery discharges. This continued some time, and then ceased. A month after, she was attacked with labour pains, and discharged about a gallon of hydatids. On the third day after this, there was a copious secretion of milk.||

* Mr. Charles M. Clarke considers the following as a diagnostic symptom of hydatids—the occasional and sudden discharge of an almost colourless and inodorous watery fluid. *Journal For. Science*, vol. 3, p. 85.

§ Burns, p. 80. Do the parietes of the uterus increase as in real pregnancy, in cases where *hydatids of the uterus* alone are present; and is there any case, where an examination has been made on a pure female labouring under this disease? I have not been able to find any. It must be recollected, that hydatids may succeed to genuine pregnancy. The fœtus may die, and both it and the placenta degenerate into them.

† A case is mentioned by Mr. Watson, F.R.S. in the *Phil. Transactions*, (vol. 41, p. 711,) in whom they were discharged with pain and hæmorrhage. The female was forty-eight years old. There was no enlargement of the abdomen or of the breasts, and she attributed her symptoms to a cessation of the menses. The hydatids were united like a cluster of grapes, to a spongy substance.

|| *American Med. and Phil. Register*, 4, p. 519. See also *New-York Med. and Phys. Journal*, vol. 1, p. 151. *Case by W. Moore, M. D.*—Several cases of hydatids of the placenta are also mentioned in a most valuable medico-legal essay, entitled “A vindication of the opinions delivered in evidence by the medical witnesses for the crown, on a late trial for murder at Lancaster.” Liverpool, 1808.—I shall notice it at length hereafter.

Mariceau also states the case of the wife of President de Nemours, who was considered pregnant during a whole year, and at last was relieved by a copious watery discharge.*

5. I will conclude this part of our subject with the following case, related to me by the late Dr. Low. In 1798, a female in the royal infirmary at Edinburgh stated that she was in labour. According to custom, a house pupil was sent to attend her, which he did very faithfully for two days and two nights. At the end of that period, he sent for Dr. Hamilton, the professor of midwifery, who examined her, and much to the mortification both of the student and the woman, declared that she must become pregnant, before she could be delivered. The disease under which she laboured, was *physometra*, or wind in the uterus—a complaint which is certainly very rare, but which practical writers mention as having occurred.†

Cases of pretended pregnancy have occasionally excited considerable attention, from peculiar circumstances attendant on them. Of this nature was the instance of Bianca Capello, the mistress of the Prince of Tuscany, who, in order to gratify his wish of having an heir, feigned herself pregnant, and at the expected period, introduced the child of another as her own. And in more modern times, Joanna Southcott, at the age of sixty-five, declared herself pregnant, and was believed by her followers in England—nay more, she even found medical men who attested to it, although she stated at the same time that she was a virgin. Her death, however, occurred previous to the expected delivery, and on dissection, no traces of pregnancy could be discovered.‡

* Foderè, 1, p. 473. This author suggests, that if water be contained in the uterus, by raising it on the point of the finger, a fluctuation more or less distinct will be perceived.

† Burns, p. 82. Denman, p. 148.

‡ Edinburgh Review, No. 48, Art. 11. In the stormy period that preceded the abdication of James II. it seems to have been a favourite opinion among the protestants, that the pretender (as he is now styled in history) was a suppositious child. The proofs in favour of this may be found in Burnet's History of his own times, London, 1753, vol. 1, p. 473, 524. And the whole

The laws on the punishment for concealed pregnancy will be introduced with most propriety in the chapter on Infanticide.

III. *Of Superfætation.*

By superfætation, is understood a conception succeeding to one that has already taken place—or that a woman, who has advanced to any period of one pregnancy, is capable of conceiving another child.

This doctrine was very current among the ancient physicians,* and it still has adherents, although the majority of the medical profession at the present day are sceptics with respect to it. Its bearing in legal medicine, is on the question of legitimacy, as I shall hereafter show.

It will conduce to a better understanding of the subject, if the cases which are deemed instances of superfætation, be first stated ; and afterwards, the objections to them, and the mode in which the opponents of this doctrine explain their peculiarities.

The following is taken from the *Consilia* of Zacchias. J. N. Sobrejus lost his life in a quarrel, leaving his wife pregnant. Eight months after his death, she was delivered of a deformed child, which died in the birth. Her abdomen remained large, and it was suspected that a second infant was contained in it, but all efforts to procure its delivery proved fruitless. One month and a day thereafter, the widow was again taken in labour, and brought forth a perfect living child. The relations of the husband contested its legitimacy, on the ground that it was the fruit of a superfætation, and Zacchias was consulted on the subject. He agreed that the two infants could not have been the product of one conception, since the interval between their birth was so great ; but advanced it as his opinion, that the *first* was the product of a superfætation,

testimony in favour and against the opinion, is collected in Howell's State Trials, vol. 12, p. 123.

* So common was the belief in it, that Brassavolus observes that he has seen superfætation epidemic !!

and conceived a month after the other. This he strengthened by the fact, that the husband died suddenly while in a state of perfect health. His opinion preserved the character of the mother, and also gave her those legal rights to which her situation entitled her.*

A case mentioned by Buffon, has been often quoted by the enemies and advocates of superfœtation. "A female at Charleston, in South-Carolina, was delivered in 1714, of twins, within a very short time of each other. One was found to be black and the other white. This variety of colour led to an investigation, and the female confessed that on a particular day, immediately after her husband had left his bed, a negro entered her room, and by threatening to murder if she did not consent, had connexion with her."†

The remainder of the instances that I shall state, are of modern date ; and the following from Dr. Moseley may be introduced in this place, from its similarity to the preceding. He observes that it occurred within his time at Shortwood Estate, in the island of Jamaica. "A negro woman brought forth two children at a birth, both of a size, *one of which was a negro and the other a mulatto*. On being interrogated upon the occasion of their dissimilitude, she said, she perfectly well knew the cause of it, which was, that a white man belonging to the estate, came to her hut, one morning before she was up, and she suffered his embraces almost instantly after her black husband had quitted her."‡

Dr. Denman, in his work on Midwifery, quotes a letter addressed to the lady of Sir Walter Farquahar,

* Zacchias Consilia, No. 66. Foderè observes, that he is assured that a female in Turin, in 1797, was successively delivered of three children, at an interval of fifteen days between each. Foderè, 1, p. 484.

† Foderè, 1, p. 432.

‡ Moseley on Tropical Diseases, &c. p. 111. A case by M. de Bouillon, exactly resembling the above, is quoted in a late journal. A negress was delivered of two male children, full grown, and of the same proportions ; but the one was a negro, and the other a mulatto. The mother confessed that she had connection the same evening with a white and a negro. Quoted from the Bulletin de la Faculté et de la Société de Médecine, 1821, in the Quarterly Journal of Foreign Medicine and Surgery, vol. 3, p. 350.

by the patient herself, which contains a case belonging to the subject before us. The female went to the ninth month of pregnancy; but between the fifth and sixth, she met with a great fright, which affected her severely, and diminished her size. On the 11th of February, she was delivered of a healthy child, but continued in pain; and it was not until the morning of the 25th, that she was relieved. "On that day, there was born the head and parts of a child that had just the appearance of a miscarriage of four months."*

Dr. Maton has lately published the following as a case of superfœtation. Mrs. T——, an Italian lady, but married to an Englishman, who was attached to the commissariat of the British army in Sicily, was delivered on the 12th of Nov. 1807, of a male child, which had every appearance of health. It was brought forth under circumstances very distressing to the parents, being dropt in a bundle of straw at midnight in an uninhabited room, and it survived nine days only. On the 2d of Feb. 1808, (not quite three calendar months from the preceding *accouchement*,) Mrs. T. was delivered of another male infant, completely formed, and apparently in good health. He was sent away to be nursed, but the nurse's milk being deficient, he was removed soon after to another foster mother. When about three months old, however, he fell a victim to the measles, and died. From Nov. 1807, to Feb. 1808, Mrs. T. had not left Palermo, except on short excursions in her own carriage, and her husband had been constantly with her, since the year 1805. He communicated this narra-

* Francis' Denman, p. 555. Cases resembling the above, are mentioned in many of the periodical journals of the present day. See London Med. and Phys. Journal, vol. 22, p. 47; and vol. 24, p. 232. In one of these instances, (case by Mr. Fawell,) a healthy child was first expelled, and in about four or five hours thereafter, a dead fœtus, of the size of a five months conception. In the other, (case by Mr. Rolfe,) the dead fœtus, apparently of six months, was first delivered, and the full grown child shortly after. The Medico-Chirurg. Transactions, vol. 9, p. 194, contain a case, by Mr. Chapman, where a blighted fœtus and placenta were expelled at seven months, and a living child remained to the full period of utero-gestation. See also Phil. Transactions, vol. 60, p. 453, (case by Mr. Warner;) and the Eclectic Repertory, vol. 9, p. 531. Dr. Mease on "Cases of Blighted Fœtus."

tive to Dr. Maton, with a certificate pledging himself to its truth.*

The last instance I shall mention, is one communicated to Foderè by Dr. Desgranges, of Lyons, and it is certainly a very extraordinary one.

The wife of Raymond Villard, of Lyons, married at the age of twenty-two, and became pregnant five years thereafter, but had an abortion at the seventh month on the 20th May, 1779. She conceived again within a month, and on the 20th of January, 1780, eight months after her delivery, and seven months from her second conception, she brought forth a living child. This delivery was not, however, accompanied with the usual symptoms—no milk appeared—the lochia were wanting, and the abdomen did not diminish in size. It was accordingly found necessary to procure a nurse for the child.

Two surgeons visited the female, and were at a loss with respect to her situation. They called Dr. Desgranges in consultation, who declared that she had a second child in the womb. Although this was strongly doubted, yet three weeks after her delivery, she felt the motion of the fœtus, and on the 6th of July, 1780, (five months and sixteen days after the first birth,) she was again delivered of another living daughter. The milk now appeared, and she was enabled to nurse her offspring.

It is not possible, adds Dr. Desgranges, that this second child could have been conceived after the delivery of the first. “*Car le mari ne lui avait renouvelé ses caresses, que vingt jours après, ce qui n’aurait donné au second enfant que quatre mois, vingt sept jours.*”

The narrative of this case was accompanied with a legal attestation of it under the oath of the mother, and on the 19th of Jan. 1782, both children were still living.†

* Transactions of the College of Physicians, London, vol. 4, p. 161.

† Foderè, vol. 1, p. 484-5-6.

These instances will give a full idea of what is understood by superfoetation in the human species. The advocates for this doctrine consider them as conclusive testimony, while the opponents explain their peculiarities in various ways, and also endeavour to prove, that this kind of conception is impossible.

In the first place, it is urged, that shortly after conception, the os tinæ, as well as the internal apertures of the fallopian tubes, are closed by the deposition of a thick tenacious mucus. The membrana decidua is also formed early, and lines the uterus, and thus co-operates with the mucus, in obliterating the openings into its cavity.*

When the gravid uterus enlarges, the fallopian tubes lie parallel to its sides, instead of running in a transverse direction to the ovaria, as in the unimpregnated state. If then an embryo be generated, the tubes could not embrace the ovum, and it would remain in the ovarium, or fall into the abdomen, and thus constitute an extra uterine conception.

But again, it is said, that even if we allow the practicability of the new embryo reaching the uterus, its arrival would be destructive to the fœtus already present. The functions which have already been performed for the first conception, have now to be repeated, and an additional decidua and placenta are to be formed.

These are, briefly, the arguments urged against the possibility of superfoetation. An appeal, however, is made to cases, where, as we have already stated, two or more children of different sizes, and *apparently of different ages*, are born, nearly at the same time, or at a longer interval.

It will be observed, that in one class of instances, the lesser child is represented as dead and decayed, and its size is much smaller than the accompanying birth. Now in these, it is suggested, that twins have

* The advocates of superfoetation deny that this mucus closes the os tinæ completely; and they conceive that the absorption of new fecundating matter through it, is possible. Capuron, p. 110. Foderè, 1, p. 482.

been conceived, and that the embarrassed situation of one child in the uterus may have prevented its development, checked its nutrition, and thus caused its death. The other, on the contrary, lives and grows, presses on the dead one, which becomes flattened, or wholly or partly putrefied; and in this condition, both may be expelled at the same time, or one may be detained for some time after the other.*

The South-Carolina case, however, mentioned by Buffon, is much relied upon; and although it has been objected that the product should have been a white and a mulatto, and that hence the narrative is evidently false, yet the case of Dr. Moseley certainly meets the difficulty in a conclusive manner. But these cases are not, in my view, calculated to aid the doctrine of superfœtation. They are examples of contemporaneous conception, as is evidently shown by the circumstances attendant on each.†

I do not pretend to explain the cases related by Drs. Maton and Desgranges. The last, particularly, appears to be one of the strongest yet adduced in favor of the opinion; and its credibility would seem to be established, from the character of the reporter, and the publicity attending it.‡

It was formerly a subject of discussion within what time, after a fruitful conception, a second one could occur. The most received opinion limited it to the two first months of pregnancy—as after that period, the development of the fœtus and uterus would probably prevent it. Zacchias, however, declares in favour of extending this term to sixty days.||

If we deny the possibility of this occurrence accord-

* Francis' Denman, p. 555.

† In noticing the objections against this doctrine, I have made a free use of Professor Chapman's able essay on it in the *Eclectic Repertory*, vol. 1, p. 369.

‡ Dr. Granville considers, that in the case of Dr. Maton, there were twins, whose ova were distinct and separate; and that the one first expelled, had probably not arrived at its full growth.

|| Vol. 1, p. 102, (Lib. 1. Tit. 3, Quest. 4.) Foderè abandons this, after receiving the case of Desgranges—since the super-conception must have been at the sixth month, even allowing the second birth to have been only a seventh month's child.

ing to the prevalent opinion of the present day, it has still been suggested, that the circumstance may happen in those rare instances where the female has a double uterus. "Haller, in his *Opuscula Pathologica*, relates the case of a lady, in whom was found after death, a double uterus and vagina; and he is of opinion, that women, thus formed, might be liable to a subsequent conception. Purcell gives an account in the *Philosophical Transactions* of a similar case, and expresses the same conviction;* and Lobstein, professor of Strasburg, tells us, in the *London Medical and Physical Journal*, that he actually delivered a woman of two children, one a month after the other, and was able to convince himself, that this was owing to her having two uteri, to each of which there was a distinct vagina."†

Should the doctrine of superfœtation ever be pleaded in medico-legal cases, we must be guided by the laws of legitimacy, both as to premature and to protracted births. The latest born should fall within the legal term, or be excluded from the privileges attendant on it. And this is more particularly necessary, from the obscurity that invests the subject.

5. *Of some medico-legal questions connected with this subject.*

Two questions relating to pregnancy, have been suggested, which deserve some notice.

1. *Can a woman become pregnant, and be ignorant of it until the time of labour?* I cannot better preface an

* Vol 64, p. 474. Mr. Pole also found a double uterus in a new-born infant. *Memoirs Med. Soc. London*, vol. 4, p. 221. "The human uterus," says Dr. William Hunter, "in the unimpregnated state, commonly has one triangular cavity. In many instances it is found subdivided at its upper part, into two lateral cavities, so as to resemble the two horns of the uterus in a quadruped. Several specimens of such uteri are preserved in my collection." Hunter's *Anatomy of the Human Gravid Uterus*. London, 1794, p. 6. I am indebted for this reference to my colleague, Professor Willoughby.

† Chapman, vol. 1, p. 370. Metzger, however, and his editor, who are strenuous opponents of this doctrine, deny the possibility of even this occurring. "L'uterus double avec un seul vagin, me paroît peu propre à héberger un fœtus: d'un cote, ou de l'autre, mais si la gaine est double également, les deux vagins sont trop étroits pour la réception du membre viril." (Page 489.)

examination of this, than by observing, that with women, certain appearances are often referred to the cause from which they wish them to originate. Thus, married females attribute their indisposition and ailments to the presence of pregnancy ; while those who, from being unmarried, and enjoying guilty pleasure, dislike that idea, charge any alteration that may occur, to disease. Of this nature is the case related by Mariceau, where a female, who had been secretly married, took every precaution to avoid pregnancy, and not only deceived herself, but also an old physician, who prescribed for her, as having a schirrous womb, until the night before her delivery. In another instance, a female, aged thirty-five, who had made the most solemn vows of chastity, deceived many physicians, who treated her for dropsy of the womb.* Foderè himself relates an instance which happened to an acquaintance, who was sent for to a nun labouring under a violent colic, and who continued to deny her being with child, until the cries of the infant silenced her.†

We may smile at these narratives ; but the subject assumes a grave importance, when the question is asked judicially. A case in which it was made the matter of investigation, is related in the *Causes Célèbres*, and an abstract of it may prove useful.

In 1770, a female aged twenty-five, and named Louisa Bunel, residing in the bishopric of Avranches in France, was seduced, and became pregnant. It was in the month of August, when field labour is the most severe, that she experienced a cessation of the menses. She attributed this to the fatigue she had undergone ; and feigning ignorance of her situation, declared herself dropsical. She applied to several monks for medical aid, and took diuretics, but without effect. Finally, at the sixth month she married, but not to her seducer ; and after that, repeatedly took an infusion of savin in wine. At the end of

* Mariceau, vol. 2, p. 205, 111.

† Foderè, 1, p. 491.

three months, being alone, she was delivered of a child, which she afterwards declared was born dead, and which she covered with linen, carried to a neighbouring field, and put it under some leaves. Eight days after, a dog discovered the body, and brought some rags from it to the house of a neighbour. Judicial search was now made. Louisa was discovered to be the mother, and was condemned to death for committing infanticide. Her plea was, 1. That she was perfectly ignorant of her pregnancy; and that the remedies she had taken, were solely with a view to remove her supposed dropsy. 2. That the child was born dead; and, 3. That at the time of delivery, she was so extremely weak for four hours, that she could not call for assistance; and on reviving, preferred burying her shame, since it was useless to expose herself by showing a dead child. An appeal was made to the superior court at Bayeux, who, after taking the opinion of sixteen physicians at Paris on the case, reversed the sentence on the 11th of November, 1772, and discharged the prisoner.*

The case, in the opinion of these physicians, turned on the following points:—1. Could the accused be ignorant of her pregnancy, and confound it with another complaint? 2. Could she innocently make use of the remedies that she confessed she had taken? and, 3. Is it certain that the child was born dead; and if so, what occasioned its death? The two first only relate to our subject, as the third belongs to infanticide. Our medical judges answered both in the affirmative, on the ground of the uncertainty of the signs of pregnancy, and the ease with which it might be confounded with other diseases. They adduced in favour of this, the authority of Astruc, Zacchias, Senac, and Hebenstreit. This last observes, that a female might be impregnated when intoxicated, and might go to the full time without knowing it; and on

* Foderè, 1, p. 491, quoted from the *Causes Célèbres*.

being seized with pain, might mistake it for colic or painful menstruation.*

Foderè, in remarking on this case, very justly observes, that although instances have occasionally occurred where married women have mistaken their situation, yet the sex generally ridicule the idea of this pretended ignorance. And in those which usually will come before a court of justice, the reply to such a plea should be—*Have you not exposed yourself to become pregnant; and on what account, then, were you so confident of the usual consequences not following it?*

The following are laid down by our author, and I think correctly, as the only cases in which ignorance is possible.

Where the female is an idiot. An instance of this kind occurred to Dr. Desgranges, in a young woman in France, who having been long tempted, was at last prevailed on to have connexion in the bath, as this, it was stated, would prevent conception. In a short time, however, the menses ceased. She became alarmed for her health, and consulted several physicians, who administered medicines; and in this state she continued without suspicion, until the approach of labour. Dr. Desgranges states it as his opinion, that the assurances of her lover had banished all ideas of the possibility of pregnancy. The female made this assertion herself to him, and her conduct previous to delivery was calculated to strengthen it, as there were no attempts to conceal herself.†

Where a female has conceived when in a state

* Hebenstreit, p. 386. There appears to me to be an intentional misrepresentation of our author in this instance. He evidently only refers to an extreme case. On the main question he observes, "His tamen non obstantibus, et quamvis vera, nec ex catameniorum defectu, nec ex tumore abdominis, aut lactis in mammis presentia, de graviditate convictio nasci possit, impossibile tamen est, gravidam, quæ vegetum, fortève embryonem, et talem qui ad usque partus legitimum terminum sine morbo pervenit, matrice tulit, motus istos magnos, qui prope finem sanæ et commodæ graviditatis sunt, non percepisse."—p. 385.

† This and the succeeding case were communicated to Foderè by Dr. Desgranges. Foderè, l. p. 496, 497.

of stupor, either from spirituous liquors or narcotics, or when in a state of coma or asphyxia. A virtuous young woman was thus violated at Lyons, during the period when the horrors of the French revolution were at their height. A powerful dose of opium was administered, the crime was completed, and in a short time she found herself pregnant, without knowing by whom.

In all other cases, the female may indeed entertain doubts concerning her situation ; but doubt presupposes something to be suspected, while ignorance is not aware of any thing.

2. *Can a female become impregnated during sleep without her knowledge ?* This question has already been incidentally noticed, and it is not necessary to enlarge on it in this place. In females, habituated to sexual connection, or where sleep is unnaturally produced, there is no doubt of its occurring—whereas in the opposite cases, the probability is greatly lessened. Authors, in remarking on this question, run into copious disquisitions on what is necessary to cause conception ; but on this, I have already intimated an opinion, which it is not necessary to repeat.*

* The following case may be added to those already related. A pregnant female, in her last moments, solemnly declared, that to her knowledge, she never had connexion ; but that a person in the family, some time previous, had given her some wine to drink, after which she fell into a profound sleep. She was not, however, conscious of any thing having occurred during that state ; but mentioned the circumstance, as probably explaining her situation.—Micrius in Brendel, p. 99.

CHAPTER VII.

DELIVERY.

PART I.—1. Signs of delivery—period within which the examination should be made. Concealed delivery. Pretended delivery—modes in which it may present itself. Appearances on dissection indicative of a recent delivery. Corpora lutea—Their value as a proof of impregnation. Medico-legal cases.—2. Possibility of delivery without the female being conscious of it. Whether a female, if alone and unassisted, can prevent her child from perishing after delivery.

PART II—1. Signs of the death of the child, before and during delivery.—2. Signs of the maturity or immaturity of the child—its appearance, size, length, and weight at various periods during pregnancy. Weight of infants born at the full time—length. Characters which mark the maturity of the child—3. The state necessary to enable the new-born infant to inherit—its capability of living—the time when it is generally deemed capable. Laws of various countries as to what constitutes life in the infant, and thus enables it to inherit—Roman, French, English, and Scotch laws. Medico-legal cases. Infants extracted by the cæsarean operation—their capability of inheriting. Laws on this subject. How far deformity incapacitates from inheriting. Monsters. Laws on this subject.

Delivery may be considered, 1, as it respects the mother, and 2, as it respects the child. We shall accordingly divide the chapter into two parts. And with respect to the mother we shall notice,

1. Concealed and pretended delivery.
2. Some medico-legal questions connected with the subject.

The second part will comprise a view of,

1. The signs of the death of the child before or during delivery.
2. The signs of maturity or immaturity ; and
3. The state necessary to enable the new-born infant to inherit.

PART I.

1. *Of concealed or pretended delivery.*

Delivery, whether concealed or pretended, can

alone be elucidated by referring to its real signs ; and it will therefore be proper to commence with a notice of them.

If the female be examined within three or four days after the occurrence of delivery, the following circumstances will generally be observed : Greater or less weakness, a slight paleness of the face, the eye, a little sunken, and surrounded by a purplish or dark-brown coloured ring, and a whiteness of the skin, like a person convalescing from disease. The belly is soft, the skin of the abdomen is lax, lies in folds, and is traversed in various directions with shining reddish and whitish lines, which especially extend from the groins and pubis, to the navel. These lines have sometimes been termed *lineæ albucantes*, and are particularly observed near the umbilical region, where the abdomen has experienced the greatest distention. The breasts become tumid and hard, and on pressure emit a fluid, which at first is serous, and afterwards gradually becomes whiter, and the presence of this secretion is generally accompanied with a full pulse, and soft skin, covered with a moisture of a peculiar and somewhat acid odour. The areolæ round the nipples are dark coloured * The external genital organs and vagina are dilated and tumified throughout the whole of their extent, from the pressure of the fœtus. The uterus may be felt through the abdominal parietes, voluminous, firm, and globular, and rising nearly as high as the umbilicus. Its orifice is soft and tumid, and dilated so as to admit two or more fingers. The fourchette or anterior margin of the perinæum is sometimes torn, or it is lax, and appears to have suffered considerable distention. A discharge, (termed the lochial) commences from the uterus, which is distinguished from the menses, by its paler colour, its peculiar and well known smell,

* Dr. Stringham, in his lectures on legal medicine, observed concerning this sign, that it is an invariable one in pregnancy. " It does not take place when milk is secreted from any other cause." Beck on Infanticide, p. 45.

and its duration. The lochia are at first of a red colour, and gradually become lighter until they cease.*

These are the signs enumerated by the best writers on the subject, and where they are all present, no doubt can be entertained, that delivery has taken place. Several of them, however, require further notice, for the purpose of indicating the mistakes which observers may experience concerning them.

1. The lochial discharge might be mistaken for menstruation, or fluor albus, were it not for its peculiar smell, and this it has been found impossible, by any artifice, to destroy. 2. The soft parts are frequently relaxed as much from menstruation, as from delivery; but in these cases, the os uteri and vagina are not so much tumified, nor is there that tenderness and swelling. And again, when all signs of contusion disappear after delivery, the female parts are found pale and flabby. This circumstance does not follow menstruation. 3. The presence of milk. This must be an uncertain sign, for the reasons stated in the chapter on Pregnancy.† “*It is possible for this secretion to take place independently of pregnancy.*”‡—The most unequivocal form in which it can appear, is when the breasts are tense and painful, and filled with the fluid, of its usual nature—not serous or watery, as is observed in pretended cases. It is also to be remarked, that this secretion goes on during the presence of the lochia; while, on the contrary, the breasts become flaccid and almost empty, if the menses supervene, and fill again when they disappear.¶—Should, therefore, a case occur where doubt is entertained, it would be proper to notice the state of the breasts while the discharge (of whatever nature it may be) is present. 4. The wrinkles and relaxation of the abdomen which follow delivery, may be the consequence of dropsy, or of lankness following great

* Foderè, vol. 2, sec. 1. Mahon, vol. 1, p. 166 to 170. Capuron, p. 124 Hutchinson on Infanticide, p. 90. Burns, p. 326.

† Page 110. See the cases there related.

‡ Burns' Midwifery, p. 326.

¶ Foderè, 2, p. 15.

obesity. This state of the parts is also seldom very striking after the birth of a first child, as they shortly resume their original state. 5. The lineæ albucantes will often remain for life, and hence should not be depended upon in cases where females have had several children.

It is hence the duty of the medical examiner to view all the signs enumerated in connexion; and where all or most of them are present, it is his duty to declare that they are the consequence of SEXUAL CONNEXION. So far he can pronounce with safety. But if the question has a bearing on the charge of infanticide, the existence of the child should be proved. I make this remark out of its place, but it cannot be too often repeated in a treatise on legal medicine. To prevent mistakes, enquiry should also be made, whether the individual has laboured under dropsy, menorrhagia, or fluor albus; or whether any external violence has been applied to the genital organs.

The next subject of enquiry is, *within what time should this examination be made?*

An astonishing difference occurs among females, in the period of recovering from the effects of delivery. Some have been known to proceed to their occupation on the day, that the child is born, while others remain enfeebled for weeks. Much in this respect depends on the constitution and habits of life. There is, however, a term in all, when the signs of delivery disappear, and the parts return to their natural state; and a general rule ought to be established in legal medicine, beyond which an examination should be deemed inconclusive and void. A majority of writers have fixed on the term of eight or ten days, for this purpose; and it is probably a correct one. After that period, the signs become equivocal, and may lead to error, particularly if the delivery has been natural.*

* Farr (p. 50 and 51,) enumerates certain signs that a woman has *formerly* been delivered of a child, which it may be proper to mention. The loss of all the signs of virginity. The orifice of the uterus wanting its conical

Zacchias remarks expressly, that the proofs of delivery become uncertain after the tenth day ; and this uncertainty increases until the fortieth, when the abdomen, with the exception of the white lines, returns to its natural state, particularly if the female be healthy. Michael Alberti, a celebrated professor of his day, and Bohn, professor at Leipsic, both recommend the visit to be made within the week ; and in a case before the parliament of Paris, in 1767, Petit and Louis reported in favour of acquitting a female suspected of infanticide, on the ground that the investigation had been made at too late a period.* The following case, which came before the criminal court of the department of the Seine in 1809, presents a most striking instance, in which the delay alone seems to have prevented the detection of the crime.

On the 11th of June, 1809, a female named Aimée Perdriat, went to the house of a friend called Rosine, who resided in the fifth story of a house in Paris. She requested leave to remain, as she felt ill with a headach and a violent colic. Shortly after her being shown to a room, a lodger in the third story heard a noise in the water-pipe, as if a heavy body passed through it. She was not visited by any one, except Rosine and another female, for the purpose of enquiring whether she wanted any thing. About five hours after the arrival of Aimée, Rosine observed blood on the stairs and on the floor of the chamber ; and Aimée remarked that her menses flowed very profusely.

Suspicious appear to have been excited ; and on the 17th, the privy was searched. A fœtus, placenta, and bloody cloths were found ; and two surgeons, who examined the body, deposed that no marks of violence were present, except that the umbilical cord

figure, and its lips unequal. An expanded and pensile abdomen. The lineæ albucantes. The frœnum of the labia obliterated ; the breasts flaccid and pendulous ; the nipples prominent, and the areolæ of a brown colour.

* Foderè, 1, p. 17. "Hæc primis post partum diebus a medicis dijudicari possunt, si vero suspicio tardius oriatur, nec in matre, nec in infante, signa rei recte definiendæ supersunt."—Ludwig, p. 44.

was torn off; that it was a full grown child; and that from their experiments, it certainly had breathed after birth, and there were proofs of this having continued even in the filthy place, from which it was drawn.

She was arrested on the suspicion of having been the mother of this child; and the suspicion was fortified by a previous refusal to admit the examination of a midwife. On the 15th, 17th, and 27th of July, being more than a month after the supposed delivery, she was examined by Baudelocque, Dubois, Anè, Dupuytren, and Lafarge. They unanimously declared, that there was no sign present which indicated the delivery of the female at the time in question. She was accordingly acquitted.*

It is impossible, I conceive, to reflect on this case, without coming to the conclusion, that this woman was guilty. But if the physical signs of the crime are so slowly attended to, judges are certainly justified in leaning to the side of mercy.†

Delivery is most commonly CONCEALED under the idea of destroying the offspring immediately after birth. In suspected cases, therefore, the examining physician should attend, 1. To the proofs of previous pregnancy. On these I have already dilated; and will only add, that ordinarily no investigation has taken place at the time when this was advancing. Circumstantial evidence is not to be trusted; but it is proper to enquire whether an enlargement of the abdomen has been observed—whether this was connected with any apparent disease, and whether any precautions as to dress were used to conceal it. 2. The proofs of recent delivery; and 3. To the connection between the supposed period of parturition, and the

* Foderè, 2, p. 18.

† A case of an opposite nature, where the female was evidently accused wrongfully, with the reasoning of Zacchias in her favour, is contained in his *Consilia*, No. 69. There was no milk present—the breasts flaccid—no lochial odour—the parts very slightly tumefied, and her strength not affected. He deemed it nothing more than a profuse menstruation, following a retention which had caused the enlargement of the abdomen.

state of the child that is found. An infant recently born, is indicated by the redness of the skin, and by the attachment of the umbilical cord to the navel ; and the female, if the mother, will be found to have the marks of a late delivery on her. The question, whether it was living after birth, belongs to infanticide.

IN PRETENDED DELIVERY, the female declares herself a mother, without being so in reality. This is not so revolting to our feelings as the former, but it is, notwithstanding, improper, and should be guarded against. Its most common origin is cupidity, or a weak desire to produce an heir to large estates ; and hence, we hear most of it in Europe, where property is entailed, and families anxiously desire the birth of a son to perpetuate their honours.

In France, pretended delivery was formerly punished with infamy and banishment. In 1772, a female in Paris, who was sterile, resolved to gain the favor of her husband by pretending pregnancy, and at the end of the proper period, obtained an infant from one of the hospitals. She effected this by the aid of a midwife, who attended during the assumed labour. Unfortunately, however, the parents of the child repented of having put it in the hospital, and endeavored again to obtain it. Failing in this, they took steps to discover where it was, and ascertaining it, a full disclosure took place. The woman was sentenced to make the *amende honorable*, with a writing on her breasts, containing these words : “ A woman who stole a child, in order to pretend being a mother,” and was afterwards banished during her life from Paris. The midwife bore a similar writing, which purported that she was one who, abusing her station, had assisted and favoured the pretending of maternity, and she was condemned to perpetual imprisonment. The parliament, however, on an appeal, lightened the punishment, and ordered her to be admonished and fined.*

* Fodéré, 4, p. 406, from the *Causes Célèbres*.

The penal code now in force in France, (sect. 345) prescribes imprisonment as the punishment for concealing an infant—for substituting one child for another, and for pretending that a child has been born.*

Pretended delivery may present itself under three points of view. 1. *Where the female, who feigns, has never been pregnant.* This, if thoroughly investigated, may always be detected. There are signs which must be present, and cannot be feigned. An enlargement of the orifice of the uterus, and a tumefaction of the organs of generation, should always be present; and if wanting, are conclusive against the fact. Dr. Male mentions a case which happened to a surgeon in Birmingham not long since. “Being called to a pretended labour, a dead child was presented to him; but there was no placenta. He proceeded immediately to examine the woman, and found the os tincæ in its natural state, nearly closed, and the vagina so much contracted as not to admit the hand. Astonished at this appearance, he went to consult a medical friend; but before any further steps were taken, it was discovered that he had been imposed upon. The woman, in fact, had never been pregnant; and the dead child was the borrowed offspring of another. She was induced to practise the artifice, to appease the wrath of her husband, who frequently reproached her for her sterility.†

2. *Where the pretended pregnancy and delivery have been preceded by one or more deliveries.* The facility of counterfeiting in this case is certainly greater than in the former, particularly if the examination be not made within eight or ten days. Attention should be given to the following circumstances: The mystery (if any) that has been affected respecting the situation of the female—her age, and particularly whether she has been previously barren; and the condition of the husband, whether aged or decrepid.

* Capuron, p. 18.

† Male, p. 212. A case of a somewhat similar nature is mentioned by Capuron, p. 110.

All these would be corroborating evidence against the actual occurrence of delivery.

3. *Where the female has been actually delivered, and substitutes a living for a dead child.* This cannot be elucidated by physical proofs, unless some persons have been present at the delivery. And in this, as well as in the former case, a strict examination should be instituted, of the witnesses who have attended. Zacchias and Mahon* lay considerable stress on the resemblance that may exist between the parent and child; but this is of little value.

It sometimes happens, that the female dies shortly after the supposed or pretended labour; and it is necessary to examine the body, in order to ascertain the truth. The appearances that are considered to indicate delivery, are the following:—"The uterus being found like a large flattened pouch, from nine to twelve inches long. Its cavity contains coagula or a bloody fluid, and its surface is covered by the remains of a decidua.† Often the marks of the attachment of the placenta are very visible; and this part is of a dark colour, so that the uterus is thought to be gangrenous by those who are not aware of the circumstance. The surface being cleaned, the sound substance of the womb is seen, and the vessels are observed to be extremely large and numerous. The fallopian tubes, round ligaments, and surface of the ovaria, are so vascular that they have a purple colour; and the spot where the ovum escaped, is more vascular than the rest of the ovarian surface. This state of the uterine appendages continues until the womb returns to its unimpregnated state.

A week after delivery, the womb is as large as two fists. At the end of a fortnight, it will be found almost six inches long, generally lying obliquely to one side. The inner surface is still bloody, and covered partially with a pulpy substance, like decidua. The

* Zacchias, Lib. 1, Tit. 5, Quest. 4; and Lib. 3, Tit. 2, Quest. 8. Mahon, 1, p. 209.

† The decidua is sometimes produced in cases of difficult menstruation.

muscularity is distinct, and the orbicular direction of the fibres round the orifice of the tubes very evident. The substance is whitish. The intestines have not yet assumed the same order as usual, but the distended cæcum is often more prominent than the rest.

It is a month at least before the uterus returns to its natural state; but the os uteri rarely, if ever, closes to the same degree as in the virgin state.”*

To these it has been customary to add, with great confidence, the presence of a *corpus luteum* in the ovarium. As we shall have frequent occasion to refer to this peculiar body, it may be proper briefly to describe what is understood by it. The corpora lutea are oblong glandular bodies, of a dusky yellow colour. In the early stages of pregnancy, and for some time after delivery, they are extremely vascular, except at their centre, which is whitish; and in the middle of this white part is a cavity, from which the impregnated ovum is supposed to have proceeded. They gradually fade and wither: but there is no regularity as to the time of their disappearance.†

From the experiments of De Graaf and Haighton,‡ it seemed to be decidedly established, that their existence was a certain indication of previous impregnation; and such was the general belief of the profession. The causes of a more minute investigation on this point, and of the invalidation of this proof, will be best understood by the introduction of an important medico-legal case. I make no apology for its length, since it reviews, as it were, all that we have stated on the subject of delivery, and points out the difficulties that may occur in judicial investigations.

Charles Angus, Esq. of Liverpool, was, in Sept. 1808, tried at Lancaster for the murder of Miss Burns, a female residing in his house. The symptoms previous to her death, and the appearances observed on dissection, were such as to warrant a suspicion that she was poisoned. The medical examin-

* Burns' Midwifery, p. 326.

† Burns and Denman.

‡ Phil. Transactions, vol. 87, p. 159.

ers also found the uterine organs in such a state, as to lead them to declare, that in their opinion the deceased had been delivered a short time before her death of a fœtus, which had nearly arrived at maturity. Accordingly, on the trial, the medico-legal questions agitated were, 1. Whether Miss Burns had died from the effects of poison; and 2. *Whether she had been delivered of a child recently before death?** I shall notice the first question in its proper place, and here confine myself to the second.

The testimony respecting her situation while living, appears to be contradictory. Before the coroner, the servants swore, that for some time before her death, she had increased very much in bulk, and had the appearance of a pregnant woman. Shortly before her death, the pain in her body was so severe, that she could not put her feet to the ground, and could scarcely bear to be touched; and she was occasionally observed to hold fast with her hands by the end of a sofa, on which she sat. These pains continued during the whole of Wednesday and Thursday, but on Friday morning, (the day she died,) they had gone off; she appeared to be lighter, and was able to walk across the floor. She was also distressed during her illness with retention of urine. On the trial, the witnesses for the prosecution swore that she had every appearance of being pregnant, while those for the prisoner swore that for twelve months before her death, she had been very poorly, and had been irregular for some years—that she had a great difficulty in breathing, and complained that she was much puffed and swelled, and was afraid of dropsy—that some weeks before her death, she was observed to be uncommonly flat bosomed, and not half so plump as she used to be in health, but swelled at the stomach—and that she had no appearance of being pregnant. Nothing satisfactory or conclusive can be drawn from these conflicting statements.

* Mr. Angus was indicted on two counts—1. For poisoning Miss Burns; and, 2. For administering poison in order to procure an abortion.

The appearances on dissection. The uterus was found so enlarged, as to be capable of containing nearly a quart of fluid. Before it was removed from the body, Mr. Hay, the surgeon, placed his left hand upon the fundus uteri, and introduced his right hand with the greatest ease into it, until the fingers of his right hand could be felt by those of the left through the fundus. The uterus being taken out of the body, an incision was made along its whole length, and its cavity laid open. The whole internal surface was bloody, and near the fundus there was a well defined circular space of a deeper colour than the rest, and about four inches and a half in diameter. This space was rough and rugged, and a small fragment of what appeared to be the placenta, still adhered to it; and the blood vessels opening upon it, were distinctly visible, and as large as a crow quill, whilst every other part of the internal surface was smooth. The walls of the uterus were about half an inch in thickness. There was no coagulum in it. The os uteri remained in so dilated a state, that the four fingers of a hand, drawn together in the form of a cone, would pass through without in the slightest degree distending it. *Vagina ipsa admodum dilatata. Labia ejus fuerunt livida, et undique sanguine fœdata.*

The medical witnesses for the crown, (Drs. Gerard, Rutter and Bostock, and Mr. Hay,) considered these appearances as conclusive in favour of her recent delivery; and they remark, that the enlargement of the uterine vessels within the boundaries of the placental mark, and the mark itself, were to them decisive—that mere enlargement of the cavity of the uterus, and dilatation of the os uteri, and even hæmorrhage, might have been occasioned by other causes than pregnancy, as by dropsy; but no form of dropsy would occasion that mark, and no dropsy would explain the extraordinary enlargement and dilatation of the uterine vessels within that mark.

On the trial, however, Dr. Carson of Liverpool,

being examined as a witness, objected to the above conclusions, for several reasons. *The great dilated state of the uterus* was such, according to him, that if the mother had parted with a placenta, she must either have flooded to death, or the womb must have been gorged with coagulated blood. To this opinion, the testimony of Mr. Charles M. Clarke, lecturer on midwifery in London, to whom the uterus was shewn after trial, may be opposed. "I have seen," says he, "uteri after the death of patients lately delivered, in whom, however, there was no hæmorrhage, which have been contracted in no greater degree than the uterus which is in the possession of Mr. Hay." Besides, it is evident, that the uterus had contracted, and was not at its maximum of dilatation ; for if it could not contain more than a quart of fluid, it certainly could not, in that state, have contained a foetus with its placenta and membranes.

Dr. Carson next intimated, that the appearances which were supposed to indicate the recent expulsion of a foetus, might be explained, on the supposition that *dropsy of the hydatids* was the disease under which Miss Burns laboured. These hydatids, he observed, are attached by pediculi to the internal surface of the womb, and the action necessary to expel them, would cause a dilatation of the os uteri. He supposed also, that the vessels nourishing the hydatids might be so much smaller than those nourishing a foetus, that in a state of undue dilatation, a flooding might not take place on their expulsion. When pressed with respect to the placental mark, he replied, that the attachment of these dropsical hydatids might have caused it.

I have already adverted to this subject in a previous chapter ; but it is necessary to descend to some additional particulars. Hydatids originate either strictly in the uterus, or in the placenta. The last are by far the most frequent. Dr. Baillie never saw an example of hydatids of the uterus ;* and Dr. Den-

* Morbid Anatomy, 3d ed. p. 376.

man, although he admits their occasional occurrence, yet adds, that the other species is what is generally observed.* A MS. extract from notes of Dr. William Hunter's lectures on the gravid uterus, delivered in 1765, gives the most minute account of these extraordinary productions. "I have seen, (says he) a placenta in the fourth month, all degenerating into hydatids. There are two kinds, one where the little hydatids are distinct and detached; the other, where they hang together in strings, like bunches of currants. This last sort is the most common in the uterus. They are most common in the placenta, but they may be in other parts of the uterus. Sometimes there are vast heaps of them in the cavity of the uterus, and no remains of the placenta. I ventured, from seeing hydatids coming away from the uterus, to say that the woman was with child, because they most commonly attend the placenta. I have seen pails full of hydatids come away from the uterus with pains, the placenta and fœtus being thus converted."

There is little doubt, but that hydatids generally hang together like a bunch of currants, and are united by a common peduncle or footstalk. Should, however, the reverse be considered probable, it is difficult to conceive where the hydatids could have been placed as in this case, where the bases of the common footstalks alone extended over a space of four inches and a half in diameter. Three cases are related by Dr. Bostock, to whom they were communicated by Mr. Kendrick, surgeon at Warrington, of the disease under consideration, and in each of them, the medium of attachment to the uterus was a placenta, about *the size of half a crown*. I will repeat again in this place, what I have before remarked,† (at the risk of exposing my ignorance on this point,) that I can find no case on record, where *hydatids of the uterus* have been formed, *independent of sexual connexion*; and again, should there be such a case, were the parietes

* Denman, p. 146.

† Page 123.

of the uterus increased, or the os uteri enlarged, as in this instance?

The difference of opinion that was thus expressed by the medical witnesses, not only on this question, whether Miss Burns had been recently delivered, but also on the main accusation of poisoning, led to his acquittal. But I believe few can review this case, and not come to the conclusion, that she had really been pregnant. The charge of infanticide does not appear to have been made, and of course ought not, without the previous finding of an infant; but in every thing that relates to the verifying of sexual connexion and its consequences, and which in this instance must have been criminal, the proof seems to be complete. Even hydatids, as we have sufficiently shown, are to be considered, in a vast majority of cases, as indications of impregnation. If present in this instance, they should have been produced, or at least seen by some medical person.

It was not until after the trial, that the ovaria were examined. They were then divided in the presence of a number of physicians, and a *corpus luteum* distinctly perceived in one of them. Mr. Hay took the uterus and its appendages to London, and shewed it to the most eminent practitioners there. He received certificates from Drs. Denman and Haighton, Messrs. Henry Cline, Charles M. Clarke, Astley Cooper, and Abernethy, all stating that it exhibited appearances that could alone be explained on the idea of an advanced state of pregnancy. And it appears to have been universally allowed, that the discovery of the *corpus luteum* proved the fact beyond a doubt.*

* The facts from which the above case has been prepared, are drawn from a review of the trial of Mr. Angus, and the pamphlets to which it gave rise, in the Edinburgh Med. and Surg. Journal, vol. 5, p. 220; also a pamphlet entitled "A vindication of the opinions delivered in evidence by the medical witnesses for the crown, on a late trial at Lancaster for murder—Liverpool, 1808."—This masterly production is from the pen of Dr. Bostock. The quotation from Dr. Hunter's Lectures, and the cases of Mr. Kendrick, are taken from it. I am also indebted for some hints to the London Med. and Phys. Journal, vol. 21; and the Edinburgh Annual Register, vol. 1, part 2, p. 188. I may add in this place, that a rude, but instructive plate of hydatids, formed like bunches of currants, is contained in Stalpart, vol. 1, p. 302.

Subsequently, however, to this time, Sir Everard Home investigated the subject; and appears to have shown that the corpora lutea may be present without impregnation. He examined the ovaria of several women who had died virgins, and in whom the hymen was too perfect to admit of the possibility of impregnation; and found that there were not only distinct corpora lutea, but also small cavities round the edge of the ovarium, left by the ova that had passed out at some former period. It is, therefore, supposed that the excitement of the ovaries from passion alone, may be sufficient to rupture the vessels, and produce corpora lutea; and this is strengthened by the corpora lutea having been found in the female quadruped, after a state of periodical lasciviousness, where no copulation had taken place.*

If the theory of Sir Everard Home concerning these bodies be adopted, we must of course discard the ancient opinion. The corpora lutea, according to him, are found in the substance of the ovarium; and their use is, to form the ova. They exist previously to, and independent of sexual intercourse; and when the ova are formed, they are destroyed by absorption, whether the contained ova are impregnated or not. He conceives, however, that impregnation is necessary to the expulsion of the ova; and that the corpus luteum is burst by extravasated blood; its cavity, after the escape of the ovum, being found distended with blood in a coagulated state.†

* Francis' Denman, p. 119. Smith, p. 489. A case is mentioned by Dr. Blundel, of a female that died of chorea under seventeen years of age, in whom the hymen, which nearly closed the entrance of the vagina, was unbroken; and yet in the ovaria, there were no less than four corpora lutea. Two of them were obscure; but the others were distinct, and differed "from the corpus luteum of genuine impregnation, merely from their more diminutive size, and the less extensive vascularity of the contiguous parts of the ovarium."—*Medico-Chirurg. Transactions*, vol. 10, p. 263.

† *Annals of Philosophy*, vol. 13, p. 140; vol. 15, p. 45. Sir E. Home dissected a female who had been impregnated a week before death. The ovum was found in the uterus, enveloped in coagulated lymph. Two corpora lutea were observable, and there were several cavities from which ova had previously made their escape. The os tincæ was closed with a thick jelly; but the opening to the fallopian tubes was pervious.—*Annals*, 9, p. 468; and 11, p. 54.

Mr. Stanley, in a late paper in the Transactions of the College of Physicians, remarks, that the corpora lutea of virgins may in general be distinguished from those that are the consequences of impregnation, by their smaller size.*

I have endeavoured, in several parts of this chapter, to inculcate the idea, that medical examiners should, in disputed cases, limit their opinion to the fact, *whether evidences of conception are present or not*. The law is so constituted, that nothing further is required of them on this point. *An infant must be found, in order to bring the charge of infanticide;* and in all other instances, it will be sufficient if we prove previous sexual connection, whether the product has been an organized fœtus or not. The following case is calculated to enforce the necessity of confining our opinion to this fact.

Mrs. Cunningham, aged 24, and the mother of three children, considered herself nearly four months advanced in pregnancy, when the rudeness of a licentious person required her to make a violent exertion. On the succeeding day, she perceived a slight discharge of blood from the vagina, which ceased in about twenty-four hours. A day thereafter, it returned with increase, and continued (gradually diminishing) for three days. All this time, she suffered no pain, nor was she prevented from managing her domestic affairs. There was a slight tenderness of the abdomen only. At the conclusion of the time last mentioned, she was seized with pains resembling those of parturition, and accompanied with a profuse hæmorrhage. Mr. Lemon, a surgeon, was called, and on examining *per vaginam*, he found the os uteri dilated to the extent of half a crown, and a bag protruding through it. A fleshy cake, three inches in diameter, possessing every character of a natural placenta, and having a membranous bag connected with

* Trans. Col. Phys. London, vol. 6, p. 425. He also suggests a doubt, whether the effect of the excitement on the ovary of the virgin, can extend beyond the rupture of the vesicle, and the production of the corpus luteum.

it, was shortly thereafter expelled. The shape of this mass was oblong. On cutting into the bag, which was flaccid, the contents gave an appearance similar to what is presented on the exposure of the abdominal and thoracic viscera of a very young fœtus. But the expansion of the placenta rendered the nature of the appearance evident. Its whole surface was covered with tumours. There were about twenty-two distinct, besides many inconsiderable ones, of various size, shape and colour, and some in clusters, all seemingly connected together by veins. The largest tumour was equal in magnitude to a small walnut. Some were of a livid colour, others fleshy brown, and two or three light yellow. The livid ones had generally condensed fat at the extremity; and they, as well as the brownish, contained coagulated blood.

The woman, during the growth of this mass in the womb, had every symptom of pregnancy—nausea, capricious appetite, enlargement of the breasts, prominent firmness of the abdomen, and a cessation of the menses. She had not, however, felt any actual motion.

Mr. Lemon remarks, that if this female had died from hæmorrhage, and her death been made a subject of legal investigation, the womb would probably have exhibited all the proofs of impregnation. Even the *placental mark* would have been present, and yet no fœtus, or umbilical cord was formed in this instance.

The observations of the editors of the journal from which this case is taken, are a satisfactory commentary on it. This mass was evidently the product of conception and impregnation. The whole catalogue of symptoms tend to prove it, and the only circumstance against it, is the absence of a fœtus and umbilical cord. “But this furnishes no conclusive argument, as there are innumerable instances of fœtuses so exceedingly imperfect, that their nature can scarcely be recognized; and with a still more imperfect organization, they degenerate into a mass like the present.”*

* Edinburgh Med. and Surg. Journal, vol. 11, p. 96. “Case in which a

The *placental mark*, then, in this instance, would have been a satisfactory proof of conception.

2. *Of some medico-legal questions connected with the subject of delivery.*

1. *Can a woman be delivered without being conscious of it?* This question must be answered in the negative, with, however; some exceptions. Delivery is undoubtedly to a certain degree independent of the will, and there may hence be certain situations in which it will take place without the female's knowledge. The administration of narcotic substances may cause such a state; as in the instance of the Countess de Saint Geran, who was plunged into a deep sleep by a narcotic beverage, and during it, was delivered of a boy. In the morning she awoke, and found herself bathed in blood, and the infant gone. Her relations had suborned individuals to remove it, in order to deprive her of the pecuniary advantages of her situation.* There is also a class of diseases commonly called comatose, and accompanied either with or without fever, during the operation of which, delivery may take place without the female's knowledge. Hippocrates mentions a case, in a woman eight months advanced, who, on the fifth day of a typhoid fever, accompanied with coma, fell into labour, and was delivered without being conscious of it. I will only add to these, the account given by Dr. Hoyer, of Mulhausen, of a female dying in labour, who was put on the bier for interment, and while there, an infant was suddenly born.†

These examples prove that it is possible for a woman to be delivered without being conscious of it; but they at the same time prove, that if some extraordinary and striking cause do not intervene, the assertion is to be disbelieved. The early pains of preg-

mass, resembling a placenta without a fœtus, was discharged from the womb. By M. Lemon, member of the Royal College of Surgeons, London." With observations by the editor.

* Foderè, vol. 2, p. 10, from the *Causes Célèbres*.

† Ibid. p. 11

nancy may be mistaken for those of colic—flooding may commence during sleep; but it is hardly credible that the whole process of labour and delivery may be gone through, by a healthy woman, and of sound mind, without her being aware of it.*

2. *Can a woman, if alone and without assistance, prevent her child from perishing after delivery?* This is a most important question, and deserves our serious consideration, from its bearing on the subject of infanticide.

There are undoubtedly many cases, in which an unassisted female will be unable to prevent the death of her infant. Among these, may be mentioned, very rapid and early delivery. Instances of this nature occur to all accoucheurs, and Foderè relates of his own wife, that a single pain brought forth the child. Such is the conformation of the pelvis, and so powerful the action of the womb, that the membranes and foetus are expelled together. Now a female taken thus, might be unable to prevent the child from falling, and its death would ensue, if she remained unassisted.† Such a state of the parts is, however, very uncommon in a first delivery,‡ and this is the one that commonly is considered in cases of infanticide. If a woman has, in a previous labour, experienced so rapid a parturition, it is her duty to guard against the consequences, when a second is impending. Another possible circumstance is, that a woman may be taken in labour and delivered while passing her fæces. The pressure of the uterus, in the latter days of pregnancy, produces an inclination of this kind, and even during labour it is very common. But delivery in this position may not only be fatal to the child, but very injurious to the mother, by tearing off the umbilical cord, or inverting the uterus. Delivery may also be attended

* Foderè, 2, p. 10. Capuron, p. 129.

† Dr. Hunter mentions a case, where the female was seized during the night, and the child was born before he arrived. She held herself in one posture, to prevent the child from being stifled; but although it had cried, yet on the arrival of Dr. Hunter, it was found dead, laying on its face, and covered with blood.

‡ Mahon, 2, p. 381.

with hæmorrhage, and consequent debility, or with fainting or convulsions, and the female be unable to assist her offspring. These are cases which do not often occur, and when they do, they leave traces sufficiently evident—paleness, swoonings, the state of the pulse, and of the infant.* A fourth case, is when the mother being alone, and the child having its face to the sacrum, is delivered with it downwards. In this position it cannot breathe, unless it be turned ; and it is well known, that the slightest substances impeding respiration in a new-born infant, such indeed as a portion of the bed clothes, or a piece of wet linen, will destroy it.

There are also some infants so weak at birth, that they require the warm bath, rubbing with stimulant applications, &c. in order to preserve their life. An unassisted mother cannot of course save these. It has also been suggested, that the female may be suddenly delivered while in a standing posture, and the infant falling, may be found with a fractured skull. In such a case, however, we should look for a rupture of the cord, and a violent hæmorrhage, consequent on a forcing away of the placenta.† The cord may also be wound round the neck, and thus prevent respiration.

Lastly, the infant may perish, and the mother not be able to prevent it, when the umbilical cord has not been tied after being cut, broken or torn. The first of these, however, is such a proof of presence of mind, that we may justly be distrustful, if she denies being afterwards unable to tie it. It may be broken and torn, as we have already stated, by the weight of the infant, and the mother be unable to save it. There are, however, instances, in which the mother and the heroine are admirably combined. The wife of a goldsmith at Marseilles, was seized in labour while walking her room. The infant fell, and the cord broke. She took it up and called for assistance, but

* Mahon, vol. 2, p. 383.

† Smith, p. 370.

was not heard. Finding that it was loosing blood by the cord, she compressed it with her fingers, and held it so for two hours, when she was found fainting. Her life, however, and that of the child were both preserved *

These are the exceptions to the general doctrine that may be laid down in such cases, viz : *That every woman is more or less acquainted with the time when she is to be in labour, and that it is her duty never to be so far alone, as to render assistance accidental.* Even during labour, the vast majority of females make known their situation by their pains, and they will only be suppressed by those, in whom shame and the fear of dishonour, are predominant passions. And it is a question of moment, whether we should feel that sympathy for this sense of shame, which some authors, and particularly Dr. William Hunter, have inculcated in their writings. It is at all events misplaced as to time; and the female who destroys a human being, and her own offspring, to escape its effects, should have felt its influence at an earlier period. “To the moral and political philosopher, Dr. Hunter may appear to have exalted the *sense of shame into the principle of virtue*, and to have mistaken the great end of penal law, which is not vengeance, but the prevention of crimes.”† It is not necessary, however, to enlarge on this point. Circumstantial evidence generally guides in the preliminary decision of it, when accusations of infanticide, are made; and great stress is properly laid, in disputed cases, on the incidents of time and place, and of situation and character.‡

PART II.

Delivery, as it respects the child, may become a subject of importance, both in civil and criminal

* Foderè, vol. 2. p. 31.

† Percival's Medical Ethics, p. 84.

‡ On this question see Foderè, vol. 2, p. 25. Capuron, p. 131. Smith, p. 365 to 377. Mahon, vol. 3, p. 381, &c.

cases; and instances are frequently occurring, in which the utility of properly understanding its phenomena, is clearly manifested. The arrangement proposed, was to notice,

1. *The signs of the death of the child before or during delivery.*

This subject may be agitated in civil cases, where the succession to an inheritance is questioned; or in criminal ones, as when a pregnant woman is maltreated, and her offspring is supposed to have died from the injury. It is, however, of the greatest importance, from its bearing on the two great medico-legal subjects of Abortion and Infanticide; and I shall notice it at this time, as an introduction to them.

During pregnancy, the life of the fœtus is inferred, from the good health of the mother; the progressive increase of the abdomen in size, and the motion of the fœtus being experienced. These form strong presumptive evidence, but there are exceptions to all of them. Healthy females may bring forth dead children, while sickly ones have produced living children. The increase of the abdomen also may be owing to a mole, or to dropsy; while the irregularities that are experienced respecting the motion of the fœtus, are sufficient to render it very uncertain. In many cases, the mother has imagined that she felt life to the moment of the delivery of a dead child; while, on the contrary, I need hardly add, no motion, or a very slight one, has been experienced for a considerable time previous to the most favourable labours.

The same uncertainty attends the proofs of life during delivery. The limpidity of the waters—the regularity of the pains, and their gradual increase in strength—the pulsation of the heart and umbilical cord of the fœtus; or, if it is not practicable to ascertain these last, the pulsation at the anterior fontanelle—and the swelling, tension, and elasticity of the presenting part, together form an incontestable chain of evidence in favour of its presence. Separately, how-

ever, they are susceptible of doubt. The two first are uncertain—the third may be impracticable—the occurrence of the fourth is denied by some authors; and it may be wanting in children who are apoplectic or feeble, and who notwithstanding have recovered after birth.* The last is a very favourable sign; but death may ensue during delivery, and the congestion induced by the detention in utero, preserve it.

In investigating, on the other hand, the signs of the death of the fœtus, we must refer, in the first place, to the causes that may have induced it. As to the mother, these are numerous. The unhealthiness of her habitation—the mode of dress—the want of food, or improper use of it—violent exercise—too great labour—violent passions of the mind, either of the exciting or depressing kind—venereal excess—intemperance—diseases, such as hæmorrhage or convulsions—contagious disorders, such as syphilis or small-pox—falls, wounds, and accidents generally—any inordinate evacuation—and indeed all the causes of abortion, as enumerated by authors, may have produced the death of the infant.

The child may also be destroyed during labour, from that process being long protracted—from its being so difficult as to require instruments, or complicated with syncope, convulsions, or hæmorrhage—from a morbid state of the placenta, or a twisting of the umbilical cord round its neck.

It is hardly necessary to add, that fatal as each of these causes have respectively been at various times, yet children have often survived in spite of them.

The signs experienced during pregnancy, of the death of the fœtus, are a want of motion in the child—the womb feels as if it contained a dead weight, which follows the direction of the body as it moves to one side or the other—the navel is less prominent—the milk recedes, and the breasts become flaccid—the mother feels a sense of lassitude and coldness, ac-

* It can of course only be ascertained, when there is a natural presentation, and hence is not always applicable.

accompanied with headach and nausea. As equivocal signs, may be added, a paleness of the face—the eye-lids having a livid circle around them—the presence of a slow fever and melancholy, and a fœtid breath.

These, if all present, form a strong presumption in favour of the destruction of the offspring. Individually, however, they are liable to be mistaken or confounded.

If actually dead, and long detained in the uterus, putrefaction takes place; the membranes lose their vitality, and blackish fœtid discharges shortly occur. It has been asserted, that if the membranes be not broken, the fœtus may remain a long time in utero, without decomposition. This is mentioned by Baudelocque and others; but authors in commenting on it, have strongly insisted that these instances are extremely rare.* The uncertainty to which this last sign is liable, I shall presently state.

The signs during delivery, of the death of the fœtus, are similar in some respects to those already mentioned, such as the absence of motion, and fœtid discharges. Writers have also mentioned the state of the presenting part. When the fœtus is dead, it has an œdematous or emphysematous feel—the skin is soft, and easily torn, and the bones of the cranium lose their natural connection, and vacillate on one another. The umbilical cord also, if it can be examined, is found to be withered and rotten.

Although these are strong proofs, yet the practitioner should not hastily pronounce on them. The fœtid discharges or odour, may be owing to the premature passage of the meconium, or to the mixture of a small quantity of blood with the uterine discharge. The former of these was at one time supposed to indicate death with certainty; but it is now ascertained that although it portends danger, yet children have, notwithstanding, been born strong and healthy.† The

* Belloc, p. 94. Foderè, vol. 2, p. 88. Jaeger in Schlegel, vol. 5, p. 69, opposes this opinion very strongly.

† “We may, however, in general conclude, when the meconium does

state of the skin and bones may be the effect of weakness, as also the looseness of the epidermis. Even its livid colour is not infallible. Vicq. D'Azyr mentions a case that occurred at Breslaw, where the arm of the infant protruded from the uterus, and was so cold and livid, that it was deemed gangrenous, and was amputated. Notwithstanding this, the infant was born alive three days after.*

We must recollect also, that the pressure occasioned by a long and tedious delivery may extinguish life. The proofs now enumerated, indicative of putrefaction, will, in that case, generally be wanting. The motion of the fœtus, which has lately been felt, will suddenly cease, and tumefaction and redness of the presenting part will be observed. Ecchymosis sometimes occurs, owing to a rupture of the vessels, and an effusion of blood into the adjacent cellular tissue.

If the medical examiner be called immediately after birth, he can have no difficulty in deciding on this question. The body will be found to have lost its firmness and consistence—the flesh will be soft, and the muscles easily torn—the skin will exhibit marks of putrefaction, and will be of a purplish or brownish red colour—the epidermis is raised, and may be easily separated—a bloody serum is often effused in the cellular tissue, and beneath the skin, especially about the cranium, and sometimes a similar effusion is observed in the cavities of the chest and abdomen, and their viscera are of a deep reddish hue. The umbilical cord is livid, soft, and easily torn. The cranium and thorax are flattened, and the

come away in a natural presentation, that the state of the child is not without danger; and for many years, I never saw a child, presenting with the head, born living, when the meconium had come away more than seven hours before its birth. But at length I met with a case, in which the meconium was discharged for more than thirty hours; at the end of which time, though the woman was delivered with the forceps, the child was born healthy and strong. And since that time, I have had many equally convincing proofs, that the coming away of the meconium is a very doubtful sign of the death or dangerous state of the infant, whatever may be the presentation."—Denman, p. 395. See also Belloc, p. 91. Capuron, p. 247. Burns' Midwifery, Note to chap. 7.

* Foderè, vol. 2, p. 91.

membranes uniting the bones of the head are much relaxed, so that the bones are somewhat disunited—the brain also is almost fluid, and has a fœtid odour.

It will readily occur, from a review of the remarks contained in this section, that the fact of the death of the fœtus before or during delivery, can be ascertained with considerable facility, if the practitioner be called at the proper season. Unfortunately, however, in most cases which come before a court of justice, the delivery has been secret, and a greater or less space of time has elapsed since its occurrence. The infant is found dead. The proofs which we have now enumerated, are inapplicable or inconclusive, and a further investigation is required to ascertain the truth. We hence come to the examination of the question of INFANTICIDE.*

2. *Of the signs of the maturity or immaturity of the child.*

A knowledge of these is no less necessary, than of those noticed in the preceding section. The medical examiner, in all cases, should be well acquainted with the indications that mark the various epochs of fœtal life, as well as those which prove its arrival at maturity. A sketch therefore of the gradual development of the fœtus, from the æra of its first formation, will be proper in this place. And I will premise, that the following summary is drawn from the observations of Aristotle, Hippocrates, Riolan, Haller, Roederer, Meckel, Burton, Baudelocque, Wm. Hunter, Burns, Chaussier, Beclard, Capuron, Clarke Merriman, and Soemmering.

From the time of the first evidence of impregnation to the fifteenth day, the product of conception appears only as a gelatinous, semi-transparent, flocculent

* The authorities on this section, which deserve attention, are, Denman, p. 391 to 399. Capuron, p. 234, &c. Hutchinson, p. 17. Foderè, vol. 2, p. 81. Smith, p. 315. Belloc, p. 91. Dr. Jaeger's dissertation on this subject, (in Schlegel, vol. 5, p. 23,) may be consulted with great advantage. Several cases are related by the author, where he examined infants dead before birth, with a direct view to the question now noticed.

mass, of a greyish colour, liquefying promptly, and presenting no distinct formation, even by the aid of the microscope. At thirty days, it has the size of a large ant, according to Aristotle, or of a barley corn, according to Burton. Baudelocque, however, observes, that it is not larger than the malleus of the tympanum. Its length varies from three to five lines. At six or seven weeks, its length is almost ten lines. The form and lineaments of the principal organs, and the place from which the members are to arise, can now be observed, and it is equal in size to a small bee. At this time also, the fluid contained in the membrane is much heavier than the embryo. At two months, the length is about two inches, and its weight, nearly two ounces. All the parts are perfectly distinct, and many points of ossification are observed in the head, trunk and members. Sometimes the male sex may be distinguished. At the third month, it is about three and an half inches long, and between two and three ounces in weight. The nose and mouth are formed, and the features of the face become more distinct. The eyes are shut, and the eyelids adhere together—the head is longer and heavier than the rest of the body—the umbilical cord is formed—the genitals are distinct—the penis and clitoris are relatively very large—the nymphæ are projecting, and the labia very thick. At the fourth month, the foetus is from five to six inches long, and weighs from four to five ounces. The external parts all develope themselves, with the exception of the hair and nails. The great relative proportion of the fluid of the membranes disappears and the foetus nearly fills the cavity of the uterus. During the fifth month, the motions of the foetus are felt by the mother. The length is from seven to nine inches, and the weight, nine or ten ounces. The brain is pulpy, and is destitute of circumvolutions or furrows. The external ear is completed about this time, although its shape, which is like that of a gently depressed circle, differs from the ear after birth.

In the sixth month, we begin to find some traces of fat under the integuments, where previously nothing but a mass of gelatine had been observed. The head also, which before had been proportionably large, becomes smaller in comparison of the body. It is now, however, large and soft, and the fontanelles are much expanded. The brain acquires rather more consistence, but is still easily dissolved; and the pia mater seems only to lie over its surface, being separated with great facility. The skin is very fine, pliant, thin, and of a purple colour, especially in the palms of the hands, the soles of the feet, the face, lips, ears, and breasts. In males, the scrotum is slightly developed, and of a bright red colour; and the testicles are still in the abdomen. In females, the vulva is projecting, and the labia separated by the protuberance of the clitoris. The hair on the head is very thinly dispersed, short, and of a white or silvery colour—the eyelids are closed; the hair on the eyebrows and eyelashes but thinly scattered, and the pupil is closed by a membrane. The nails are wanting, or scarcely apparent. The lungs are very small, white, and compact. The heart is large, and the liver very large, and situated near the umbilicus—the gall-bladder contains only a small quantity of a nearly colourless fluid; and the meconium is small in quantity, and is found only in a part of the large intestines. The bladder is hard and pyriform, and has a very small cavity. The ordinary weight of the fœtus at this time, is from one to two pounds; and its length from nine to twelve inches—the middle of which is at the abdominal extremity of the sternum.*

At the seventh month, all the parts, both external and internal, are still more developed. The skin

* In the Quarterly Reports of the New-Town Dispensary, (Edinburgh,) there are two cases mentioned, which it will be proper to add in this place. A child, supposed to be advanced six and a half months, lived eleven days. On the fifth day after its birth, it weighed two pounds nine ounces and three quarters avoirdupois. Another, probably at the sixth month, lived fourteen hours—weighed two pounds four and a half ounces English, and measured thirteen and seven-eighths inches.—Edinburgh Med. and Surg. Journal, vol. 13, p. 249, 526.

assumes a rosy hue, and becomes more dense ; and it is covered with a sebaceous fluid, so as to form a whitish, unctuous covering. The eyelids are no longer united, and the membrana pupillaris separates, so as to form the pupil. The cerebral pulp becomes more consistent, and its surface is a little furrowed; and adheres somewhat to the meninges. The meconium increases in quantity—the hair on the head is longer, and takes a deeper hue. The nails acquire more firmness. Weight from two to three pounds. Length from twelve to fourteen inches—the middle of which is nearer to the sternum than to the navel.

At the eighth month, the skin has acquired more density, and becomes whiter ; it is covered with very fine and short hairs, and its sebaceous covering is more apparent. The nails are firmer ; the hair of the head longer, and more coloured. The breasts are often projecting, and a lactiform fluid may be pressed from them. The testicles in males are frequently engaged in the abdominal ring. In females, the vagina is covered with a transparent mucus. The grooves in the cerebral substance gradually become more marked ; and the spinal marrow, pons varolii, and medulla oblongata, acquire a remarkable consistence, and even firmness. The lungs are of a reddish colour—the liver preserves nearly its former relative size, but it is more remote from the navel—the fluid in the gall-bladder is of a yellowish colour, and has a bitter taste. The weight at this time is from three to four, and sometimes even five pounds. Length sixteen inches or more—the middle of which is nearer to the navel than to the sternum.

At the ninth month, ossification is more complete—the head is large, but it has a considerable degree of firmness. The bones of the cranium, although moveable, touch each other with their membranous margins—the fontanelles are smaller ; the hair is longer, thicker, and of a deeper colour ; and the nails become more solid, and prolonged to the extremity of the fingers. The circumvolutions on the surface of the brain

are more numerous—the cineritious portions begin to be distinguished by their colour; and although the lobes which compose the cerebrum, retain their former softness, yet the cerebellum, and the basis of the cerebrum, have acquired a remarkable consistence. The head measures longitudinally, from the forehead to the occiput, four inches to four inches and a quarter; and transversely, from three and a half to four inches. The abdomen is now large and round. The lungs are redder and more voluminous. The canalis arteriosus is large, and its coats are thicker and denser than formerly. The meconium fills nearly the whole of the intestines, and the bladder contains urine. In fact, the digestive apparatus, the heart and the lungs, are in a state fit to commence extra-uterine life. The length varies from nineteen to twenty inches or more—the middle of which is at the navel, or a very little below.*

The observations of M. Beclard on the skeleton, may also be stated, as its increase is more regular than that of the softer parts, and its appearance may afford important evidence in cases, which vary from the ordinary state.

“After two months have elapsed from the period of conception, the skeleton is about four inches and three lines in length, that of the spine being two inches. At three months, the former is six inches and the proportion of the spine as two and two-thirds to six. At four months and a half, it is nine inches, and the spine four. At six months, twelve inches, and the spine five. At seven and a half months, fifteen inches, the spine six and one-third. At nine months, or the period of birth, it is ordinarily from sixteen to twenty inches in length, or at a medium of eighteen inches, and the spine is in the proportion of seven and three-fourths to eighteen, to the whole length of the body. These calculations were made from observations on about fifty fœtuses, at each of the periods above indicated.

* Hutchinson, p. 6 to 14. Capuron, p. 165 to 173. Foderè, vol. 2, p. 149. Burns, p. 114 to 118.

Each vertebra, consisting originally of a section of a solid cylinder, and a ring furnished with several apophyses, is in general, formed by three primitive points of ossification; the one anterior, which by its development, forms the body or solid part of the bone; and two lateral ones, which constitute the apophysarial masses, and which, uniting together with the former, constitute the annular structure. Besides these, each vertebra is completed by several secondary points of osseous development.

At about the sixth month of intra-uterine life, two points of ossification are found in the second cervical vertebra, one situated above the other. Towards the seventh month, the superior point, which answers to the odontoid process, is larger than the inferior, which relates to the body of the bone. At about the eighth month, the transverse processes have begun to ossify in the first of the lumbar vertebræ. At the time of birth, ossification has commenced in the body of the first cervical vertebra, and also in the first bone of the coccyx. At this age the body of the fourth lumbar vertebra, which is the most voluminous, is three lines in depth and six lines in breadth. At the same period, the lateral portions of the six superior dorsal vertebræ begin to unite together, so as to form a ring posteriorly to the bodies of those bones. The lateral arch of the second, which is the largest, forms a chord of seven or eight lines.”*

The weight of the fœtus at the full term of utero-gestation, has been the subject of numerous observations, and as a preliminary remark, it must be noticed, that this differs according to the conformation and habits of the parent and the sex of the child. Healthy females residing in the country, or engaged in active occupations, have generally the largest children. Male children also, generally weigh more than female ones.

In Germany, Roederer found the weight in one

* Hutchinson on Infanticide, pages 12, 13, 14.

hundred and thirteen cases, to vary from seven to eight pounds, and he lays it down as a rule, drawn from his observations, that it is rarely less than six pounds.* Dr Hunter states that Dr. Macauley examined the bodies of several thousand new born and perfect children at the British lying-in hospital, and found that the weight of the smallest was about four pounds, and the largest eleven pounds two ounces, but by far the greater proportion was from five to eight pounds.† Dr. Joseph Clarke's enquiries furnished similar results. The greatest proportion of both sexes according to him, weighed seven pounds, yet there were more males than females found above, and more females than males below that standard. Thus out of sixty males and sixty females, thirty-two of the former and twenty-five of the latter, weighed seven pounds, and there were fourteen females, but only six males, who weighed six pounds. On the other hand, there were sixteen males, but only eight females who weighed eight pounds. Taking then the average weight of both sexes, it will be found that twelve males are as heavy as thirteen females. The exact average weight of male children according to Dr. Clarke, was seven pounds five ounces and seven drachms, and that of female, six pounds eleven ounces and six drachms.‡

Dr. Clark, of Dublin, found the weight to vary from four to eleven pounds. Dr. Merriman states in his lectures, that he delivered one which weighed

† Bosc de *Diagnosi vilæ fœtus et neogeniti*, in Schlegel, vol. 3, p. 23. I have selected this as the most accurate account of Roederer's observation, as there is a discrepancy among the writers which notice him. Foderè (vol. 2, p. 153) says the weight, according to his table, is from six to seven and a half pounds, and Hutchinson (p. 15) from five to six and a half.

‡ Hunter's *Anatomy of the Human Gravid Uterus*, p. 68.

‡ Phil. Transactions, vol. 76, p. 349. Dr. Clarke also mentions the following observations as made by Roederer. The placenta of a male was found to weigh on an average, one pound two ounces and a half; whilst that of a female weighs half an ounce less. Female children, who at the full time weigh under five pounds, rarely live; and few males, who even weigh five pounds, thrive. They are generally feeble in their actions, and die in a short time.

fourteen pounds (it was born dead;) and Dr. Croft delivered one alive, weighing fifteen pounds.*

In France the weight seems to be less than in England. Of 1541 examined by Camus, the greatest weight was nine pounds; and of this there were sixteen instances—the ordinary, from five to seven, and the average, six pounds and about a quarter: there were thirty-one instances in which it was as low as three pounds. Baudelocque, however, states that he saw several instances in which the weight was about ten pounds—a few where it was twelve, and one of thirteen. Subsequent observations on twenty thousand children, at the Hospice de la Maternité in Paris, have shown a few instances where it has been one hundred and sixty-eight ounces, that is, ten pounds and a half; and this is the highest term.† Capuron mentions, that he has seen two instances where the children weighed twelve pounds.‡

We shall, as a deduction from the above observations, be probably most correct in allowing the average to vary from five to eight pounds.¶ When there are two children in utero, the weight of each individual is generally less than that of a single fœtus, but their united weight is greater. The average weight of twelve twins, examined by Dr. Clarke, was eleven pounds the pair, or five and a half each. When the number of children increases above two, the aggregate weight does not increase. Dr. Hull, of Manchester, met with a delivery of five children, who did not weigh five pounds and a quarter. They measured from eight to nine inches in length, and two of them

* Hutchinson, p. 15. Dr. Moore, of New-York, has had several cases, where the weight was full twelve pounds each; and an instance occurred in 1821, in that city, where the fœtus (born dead) weighed sixteen pounds and a half. New-York Med. and Phys. Journal, vol. 2, p. 20.

† Ibid.

‡ Capuron, p. 172. Cranzius says he has seen one fœtus weighing 23 pounds, and another 27!!

¶ Dr. Willoughby, Professor of Midwifery at the College of Physicians and Surgeons of the Western District, whose practice in this branch has been very extensive for a number of years, informs me, that as far as his observation has extended, the average weight of children is upwards of seven pounds.

were born alive.* Dr. Bryan, of Fairfield, in this state, had, however, a case of four children, which all lived a day; and their aggregate weight was eleven pounds, fourteen ounces. Their length varied from $14\frac{3}{4}$ inches to $17\frac{1}{2}$ inches.†

The length of the fœtus at the full time, varies much less than its weight. Roederer concludes from his examinations, that the average length of a male is twenty inches and a third, while that of a female is nineteen inches and seventeen eightieths. Petit assigns twenty-one inches as the usual length. Hutchinson says, it is ordinarily from nineteen to twenty-two inches, and seventeen and twenty-six inches will include the two extremes, excepting some very rare cases, while Foderè and Capuron place the extremes from sixteen to twenty-three.‡ This last author attaches great importance to the difference in the proportion between the length of the superior and inferior parts of the body, and he conceives that attention to this, is one of the best modes of verifying the age of the fœtus. As a general rule, there will be an equilibrium between the upper and lower parts of the body, at the ordinary term of gestation, and the navel will be at the middle of the body, or nearly so. Before that time, the middle will approach nearer to the head, in the manner that I have mentioned in the preceding pages.||

It is evident, that the signs drawn from the structure, weight, and dimensions of the fœtus are liable to some variety, and this depends on various circumstances, such as the age and vigour of the mother, her mode of life, the diseases to which she may have been subject, and probably the climate in which she lives.

* Phil. Transactions, vol. 77, p. 344.

† New-York Med. and Phys. Journal, vol. 1, p. 417.

‡ Bose (in Schlegel, vol. 3, p. 25,) says he has met with two—"Viginti et quatuor pollices ulnæ Lipsicæ pene superasse, hos ultimos autem a rusticis matribus progenitos fuisse."

|| Capuron, p. 173. Chaussier appears to have been the first that noticed these proportions, (see Ballard, p. 168;) although Capuron does not acknowledge the obligation.

The characters which mark the maturity and perfection of the organs and functions of the child, are thus stated by Foderè and Capuron. The ability to cry as soon as it reaches the atmospheric air, or shortly thereafter, and also to move its limbs with facility, and more or less strength. The body being of a clear red colour—the mouth, nostrils, eyelids and ears perfectly open—the bones of the cranium possessing some solidity, and the fontanelles not far apart—the hair, eyebrows and nails perfectly developed—the free discharge of the urine or meconium in a few hours after birth—and finally, the power of swallowing and digesting, indicated by its seizing the nipple, or a finger placed in its mouth.

The child on the contrary is considered immature,* when its length and volume are much less than that of an infant at the full time ; when it does not move its members, and makes only feeble motions ; when it seems unable to suck, and has to be fed artificially ; when its skin is of an intense red colour, and traversed by numerous bluish vessels ; when the head is covered with a down, and the nails are not formed ; when the bones of the head are soft, and the fontanelles widely separated ; the eyelids, mouth and nostrils closed ; when the membrana pupillaris is still present ; when it sleeps continually, and an artificial heat is necessary to preserve it ; and when it discharges its urine and the meconium imperfectly.†

* By this term is understood, a birth before the full period of gestation. There is another division more generally adopted. A delivery before the seventh month, is called an *abortion* ; and at any time between the seventh and ninth month, a *premature birth*.

† I insert the following extract from an English newspaper, which I accidentally met with, because it favours us with some information from an eminently experienced accoucheur. “ In the evidence on Bailey’s divorce bill, in the house of lords, March 10, 1817, the point in dispute appeared to be, whether Mr. Bailey’s child was full grown at its birth ? The nurse swore that it cried with a strong voice, and was fed three times in the course of the day when it was born. Dr. Gardiner, the attending physician, corroborated the testimony of the nurse as to the full growth of the child. Dr. Merriman was then called in, and examined as to the consequences of a premature birth on the offspring. He said he had known a child born in six months and eighteen days, live to grow up, but never to become stout. A child born under such circumstances, would be smaller than usual ; the skin

Should the examiner be called on to decide this question after the death of the child, it will be his duty, after noticing such external circumstances as I have already indicated, to proceed to a dissection of the body. All those appearances which mark the presence of fœtal life, and which are distinctly explained in anatomical and obstetrical works, should be carefully noticed.* The navel, liver, heart, and particularly the lungs, should be examined; and the enquiry must be, whether the changes necessary for independent life have taken place.

3. *The state necessary to enable the new-born infant to inherit.*

It frequently becomes a question of great importance in civil cases, and particularly in those relating to the disposition of property, to ascertain whether the infant is born alive. In this country, the subject becomes very interesting, since our law is borrowed from that of England, which is peculiar in some of its provisions, and enables property to be held by a certain class of persons on the establishment of the above fact. For the sake of order, I shall, in the first place, briefly notice the period of gestation, after which children are considered capable of living; secondly, mention the laws of various countries, and the decisions under them, as to what constitutes the life necessary for inheritance in the infant; and shall then conclude with some observations on the question how far deformity incapacitates from inheriting.

1. The French employ a very useful word in noticing this subject—the *viability* of the infant; and I shall take the liberty of using it, although aware that great caution is necessary in the introduction of foreign terms. As a general rule, it seems now to be gener-

would be redder, and the face not so completely formed. As far as his experience went, he should conclude that it could not cry strongly, and would be oppressed by difficult respiration. The perfect conformation of the nails, strong voice, and usual size, were proofs of a full-grown child."—Globe newspaper, March 11, 1817.

* Burns' Midwifery, p. 118 to 122

ally conceded, that no infant can be born *viable*, or capable of living, until one hundred and fifty days, or five months after conception.* There are, however, cases mentioned to the contrary. A person named Fortunio Liceti, is said to have been born after a gestation of four months and a half, and to have lived to the age of eighty.† Dr. Rodman, of Paisley, relates the case of an infant surviving, where the mother was confident that the period of her gestation was less than nineteen weeks. She had previously been the mother of five children. In such cases, however, we should recollect that females are liable to mistakes in their calculations; and that conception may take place at various times during the menstrual intervals, and thus vary the length of the gestation. Such early living births are, at the present day, very generally and very properly doubted.‡

Between five and seven months, there have been instances of infants living, though most rare; and even at seven, the chance of surviving six hours after birth, is much against the child.||

* Dr. William Hunter, however, when asked what is the earliest time for a child's being born alive, answered, "A child may be born alive at three months; but we see none born with powers of coming to manhood, or of being reared, before seven calendar months, or near that time. At six months it cannot be." Hargrave's Note 190* on sect. 188 of Coke upon Littleton.—The Roman law, by one of its provisions, *de suis et legitimis hæredibus*, decided that a child might be born alive six months and two days after conception; and by another, *de statu hominum*, required seven months. Foderè, vol. 2, p. 110.

† Capuron, p. 157.

‡ In the case by Dr. Rodman, the child was alive and healthy nine months after birth. At three weeks, he measured thirteen inches in length, and weighed one pound thirteen ounces. He was so destitute of vital energy, that life was for some time preserved by keeping him constantly in bed with the mother, or other females. The length and weight just mentioned, are those, according to the statement made in former pages, of an infant *advanced between the sixth and seventh month*; and although Dr. Rodman seems to question the accuracy of authors on this subject, yet the observations have been made in too many cases, to be affected by this solitary exception. His object in publishing this case, is certainly highly laudable; and no physician, however premature the birth may appear to him, should neglect doing every thing to support and invigorate the appearances of life that are present.—Edinburgh Med. and Surg. Journal, vol. 11, p. 455; vol. 12, p. 126, 251.

|| Belloc and Capuron, among modern authors, mention instances of children surviving at six and six and a half months. They were very feeble and small—the head covered only with a light down, and the nails scarcely

An opinion, which appears to be as old as the days of Hippocrates, has occupied the attention of many writers, concerning the viability of eight months' children. It seems to have been the prevalent idea, that they are not so capable of living as those of seven months. It is difficult to say on what this is founded, and it is unnecessary, in this work, to enter on its discussion. I will content myself with observing, that according to my view, the chance of a child's surviving is increased, the nearer it approaches the natural term of gestation, and that accordingly the viability of an eight months' child is greater than a seven months.*

2. If we proceed as far back as the Roman law, we shall find provisions on the subject before us. To enable the infant to succeed to property, it was necessary that *it should be perfectly alive*, "*si vivus perfectè natus est*;"† and the decision of Zacchias is in accordance with it. *Non nasci, et natum mori, paria sunt.*

As to France, a capitulary of Dagobert ordained, that in order to succeed to property, the infant should live an hour, and be able to see the four walls and ceiling of the chamber. An ordinance of Louis the Ninth, altered this law, and directed that it should cry, in order to enable it to succeed.‡

The present French law is contained in the 725th and 906th articles of the civil code. *In order to succeed, the infant must be born alive; and in order to receive by testament, it is sufficient to have been conceived at the time of the death of the testator; but neither donation or testament can have effect, unless*

formed Belloc, p. 78. Capuron, p. 158.—Cases of the same nature are also scattered through the earlier authors; and most medical observers have occasionally met with instances of infants living at seven months. To these, it is not necessary to refer.

* Capuron, p. 159. Foderè, vol. 2, p. 168. Mahon, vol. 1, p. 157. Gœlicke in Schlegel, vol. 5, p. 139. Some writers, however, adduce the broad argument of experience, and assert that more seven months' children are reared, than those of eight months. See the review of Barlow in New-England Journal, vol. 12, p. 52.

† *Codex de posthumis*, quoted by Foderè.

‡ Capuron, p. 198.

*the child be born alive.** And the interpretation of the word *life*, or *being born alive*, is, according to the most distinguished lawyers and physicians of that nation, *complete and perfect respiration.†*

The English law, so far as it has a bearing on the question before us, is contained in the provisions concerning a *tenant by the curtesy of England*, as it is called. By this is understood, “where a man marries a woman seised of an estate of inheritance, and has by her, issue born alive, which was capable of inheriting her estate. In this case, he shall, on the death of his wife, hold the lands for his life, as tenant by the curtesy of England.”‡ The exposition of commentators is as follows:—“It must be born alive. Some have had a notion that it must be heard to cry, but that is a mistake. Crying indeed is the *strongest* evidence of its being born alive; but it is not the *only* evidence.”|| Coke says, “If it be born alive, it is sufficient, though it be not heard to cry, for peradventure it may be born dumb. It must be proved that the issue was alive; for *mortuus exitus, non est exitus*; so as the crying is but a proof that the child was born alive, and so is motion, stirring, and the like.”§ The cases to which both these authors refer, certainly prove the doctrines stated by them to be the law of England;¶ but it is to be feared, that the broad prin-

* Capuron, p. 9.

† “Enfin les jurisconsultes ont adopté l’opinion des médecins à cet égard, et ne font consister la vie ordinaire que dans la respiration complète. Le célèbre Merlin dit aussi très formellement qu’il n’y a que la respiration complète que constitue la vie.”—Capuron, p. 199.

‡ An ancient provision in the laws of Æthelbert, reverses the law as now in force. “If a wife brought forth children alive, and survived her husband, she was to have half his property.”—Edinburgh Encyclopædia, vol. 2, p. 102, Art. Anglo-Saxon Laws.

|| Blackstone, vol. 2, p. 127.

§ Coke Littleton, 30 a.

¶ Dyer’s Reports, p. 25. “It was moved, that a man shall be tenant by the curtesy, although the issue be not heard to cry, so as it can be known that it hath life; for it may be, the issue is born dumb.” So was the opinion of Fitzherbert. This was in the 28th of Henry VIII. The other case (Paire’s in 8th Coke’s Reports) is instructive, because it gives us the opinion of the older writers on this subject. Glanvill says that the husband inherits, “*ex uxore sua hæred’ habuerit filium vel filium clamentem et auditum infra quatuor parietes.*” And Bracton, “Sive superst’ fuerit liberi sive mortui, dum tamen semel aut vocem aut clamorem dismiserint, quod audiatur inter quatuor parietes, si hoc probet: et licet partus moriat’ in ipso partu, vel

ciple thus laid down, may lead to practical injustice. I cannot better illustrate my ideas on this point, than by stating the following case, which lately occurred in England.

In 1806, a cause entitled *Fish or Fisher v. Palmer*, was tried before the court of exchequer at Westminster hall. It appears that an infant was born to Mr. Fish in 1796, which was supposed to be still-born; and on the death of his wife, he accordingly resigned her property to the legal heir. Some circumstances afterwards occurred, which induced him to bring the present action, and to attempt to prove that the child had not been born dead. Dr. Lyon (deceased at the time of the trial) had declared, an hour before the birth, that the child was alive; and having directed a warm bath to be prepared, gave the child, when born, to the nurse, to be immersed in the warm water. It did not cry, nor move, nor shew any symptoms of life; but while in the water, (according to the testimony of two females, the nurse and the cook,) there twice appeared a twitching and tremulous motion of the lips. Upon informing Dr. Lyon of this, he directed them to blow into its throat; but it never exhibited any other signs of life.

Several physicians were examined as to the deduction to be drawn from these symptoms. Drs. Babington and Haighton agreed that the muscular motion of the lips could not have happened, if the vital principle had been quite extinct; and that therefore the child was alive. Dr. Denman, on the contrary, gave it as his opinion, that the child was not alive. He considered that the motion of the lips did not prove the presence of the vital principle, and drew a distinction between uterine and extra-uterine life. The remains

vivus nascat, vel forte semi-mortuus, licet vocem non emiseric, solent obstetrices in fraud' veri hæred' protestari partum vivum nasci et legitim', et ideo necesse est vocem probare, et licet naturaliter mutus nascitur et surdus, tamen clamorem emittere debet." The court, however, (common pleas, 29th of Elizabeth,) decided according to the dictum of Littleton, as adopted by the commentators in the text, that "*the crying is but a proof of the life.*" But in the case at bar, to remove all scruples, it was found that the issue was heard to cry."

of the former, he thought, might have produced the twitching of the lips. The jury, however, found that the child was born alive; and the property which he had surrendered ten years previous, returned again to Mr. Fish *

It will readily be observed, that a very extensive latitude is given to juries by this decision; and that they may decide contrary to what is correct in physiology, on the opinions of men incompetent to guide on this subject. In the instance before us, indeed, they were justified in their verdict by the testimony of eminent physicians, but it must also be remarked, that the proofs of life relied on by them are equivocal. It has been suggested, and I think with truth, that these convulsive motions merely show that the muscular fibre has not yet lost its contractility. Still-born infants, or those who die instantly on being delivered, are not unfrequently observed to open their mouth, and extend their arms or legs. May not these be merely the relaxation of a contracted muscle, or the stimulus of the atmospheric air on a body unaccustomed to it? Foderè remarks, that in his youth, he has frequently seen still-born children carried to a chapel of the Virgin, which was built on high ground. The cold air of the place produced such an excitement, that they appeared to raise their eyelids for an instant, and that instant was improved to administer the rite of baptism.† Chaussier also examined the bodies of several children, born at five, six, and even seven months, who were said to have lived one or two hours, and in whom a motion of the jaws and members had been observed, and indeed a slight respiration. He ascertained by dissection, that not one of them had lived after birth, and concluded, that the proofs observed, owed some of their strength to the wishes of friends, and were in fact nothing more than the feeble remains of foetal life—resembling, in many respects, the ap-

* Foderè, vol. 2, p. 160. Smith, p. 383.

† Foderè, vol. 2, p. 160.

pearances observed on the body of an animal recently decapitated.†

The Scotch law seems to be more precise in its provisions. Individuals there, as in England, are allowed to hold property, as tenants by the curtesy. But it can only take place where the issue has been heard to cry. “Lord Stair, in his *Institutes*, lays it down, that the children of the marriage must attain that maturity, as to be heard to cry or weep, and adds, that the law hath well fixed the maturity of the children by their crying or weeping, and hath not left it to the conjecture of witnesses whether the child was ripe or not.” A case, in conformity to this doctrine, was decided as late as 1765, in the court of session, (*Dobie v. Richardson.*) “Dobie’s wife brought forth a child about nine months after marriage, which breathed, raised one eyelid, and expired in the usual convulsions about half an hour after its birth, *but was not heard to cry.* The mother died in child-bed, and the question was, whether the *jus mariti* was not lost by the death of the wife within the year, without a child of the marriage, *who had been heard to cry?* After much argument on both sides, the decree was, that as the wife did not live a year and a day after her marriage, and *as it was not proved* that the child or foetus of which she was delivered, *was heard to cry*, the husband was not entitled to any part of his deceased wife’s effects.”*

The state of infants delivered by the CÆSAREAN OPERATION, belongs also to this place, and I shall illustrate the laws of different countries respecting them by mentioning various cases that have occurred.

A female, the wife of Matthew Braccius, died at the seventh month of pregnancy, of a violent illness, and a quarter of an hour thereafter, an infant was taken from her by the Cæsarean operation. The father claimed to be its heir, and it was asserted, in proof of its life, that it had opened its eyes, and made

† Capuron, p. 198.

* See a note to Dyer’s Reports, 25, by the editor, John Vaillant, A.M. &c

some slight motions. Zacchias was consulted on this case, and in his Opinion, he asserts that these motions were mechanical, and the effect of the air on the body, and this was corroborated by the fact, that after its extraction, the child was carried into a cold cellar. The decision was conformable to this opinion.* It appears, however, that the court of *Sancta Rosa* at Rome, allowed an infant to inherit, who was delivered by the Cæsarean operation, and who lived for several weeks thereafter.†

In France, a similar case has been made the subject of controversy. A female, residing in the department of the Loire, died in child-bed on the 2d of July, 1780, and after her death, an infant was extracted by the Cæsarean operation, which was baptised, as being alive. A law suit was instituted on the case, and it was proved, that the infant had opened and shut its mouth for the space of half an hour—that one of its hands had been opened, and that it closed it again without assistance—that it vomited some froth—that it made several expirations like a person who is dying—and that it was perfectly well formed. It was objected, that the infant was too immature, and consequently was not viable, and of course could not succeed to property. The testimony of the witnesses was also impeached. The court, however, decided that the infant had lived, and refused to consider the question of its viability.‡

In England, a person cannot hold property as tenant by the curtesy, if the child has been delivered by the Cæsarean operation. “The issue must be born during the life of the mother; for if the mother dies in labour, and the Cæsarean operation is performed, the husband in this case, shall not be tenant by the curtesy: Because at the instant of the mother’s death, he was clearly not entitled, as having no issue born, but the land descended to the child, while he was yet in his mother’s womb; and the estate, being once so

* Zacchias Consilium, No. 67.

† Foderè, vol. 2, p. 163.

‡ Foderè, vol. 2, p. 164.

vested, shall not afterwards be taken from him.”^{ns}
 “One Reppes, of Northumberland, took to wife an inheritrix, who was great with child by him, and died in her travail, and the issue was ripped out of her belly alive; and by reference out of the chancery to the justice, they resolved, that he should not be tenant by the curtesy, for it ought to begin by the birth of the issue, and be consummated by the death of the wife.”[†]

3. The consideration of the subject, *how far deformity incapacitates from inheriting*, cannot be better introduced, than by stating the division of monsters proposed by Buffon. He separates them into three classes, monsters by excess, monsters by defect, and monsters by alteration or wrong position of parts.

Of the first class, a very remarkable instance is related in the case of twins, born at Tzoni, in Hungary, on the 16th of October, 1701. These two females were called Helen and Judith, and were separated from each other, except at the anus, where they were united and the function pertaining to that part was performed in common. They lived to the age of twenty two years. Judith first fell sick, but the health of Helen also became soon impaired, and the latter died three minutes after the former. They expired on the 23d of February, 1723, at Presburg.[‡] The case related by Sir Everard Home, in the Philosophical Transactions belongs also to this division. A male child was born in Bengal in 1793, with a well formed

* Blackstone, vol. 2, p. 128. See also Coke Littleton, 29 b.

† Paine's Case, 8th Coke's Reports.

‡ See an account of this extraordinary case in the Phil. Transactions, by J. J. Torkos, M.D. F.R.S. (vol. 50, p. 311.). A similar instance is mentioned in Piscottie's History of Scotland, p. 160. Cases of double births united at various parts, may also be found in the Phil. Transactions, vol. 5, p. 2096; vol. 23, p. 1416; vol. 25, p. 2345; vol. 32, p. 346; vol. 45, p. 526; vol. 72, p. 44; vol. 79, p. 157. A very interesting account of a person living in China, with a male child adhering to his breast, is contained in Chapman's Journal, vol. 2, p. 148; and vol. 3, p. 78. The individual was sixteen years old when the account was written. He is able to do the work of a husbandman. Some additional particulars concerning him will be found in Edinburgh Phil. Journal, vol. 7, p. 216. The essay of Mr. Lawrence on monstrous productions, contained in the Medico-Chirurg. Transactions, (vol. 5, p. 165,) contains numerous references to extraordinary cases.

body, but it had a second head, placed in an inverted position on the top of the proper one. It was equally perfect, and at the age of six months, both were naturally covered with black hair. The child lived four years, and its death was owing to the bite of a *cobra de capello*. On dissection, no bone was found separating the two brains. The skulls are preserved in the Hunterian museum.*

It is barely necessary to remark, that frequent instances also occur of an increased number of organs, members, &c.

Of monsters by defect, the most remarkable are those, which are born without a head, and are hence stiled *acephalous*. These live in the womb, but do not survive after birth, since the function of respiration cannot be performed. To this class also belong those which are destitute of lungs, of one or more organs of sense, &c.†

The defects of the third class are seldom discovered until after death, as they are commonly internal. They are hence seldom the subject of enquiry in legal medicine. But the most remarkable instances of this nature are those in which the rudiments, or parts of a fœtus have been discovered.‡

After this exposition of the condition in which monsters are generally born, we shall be enabled to apply the laws of various countries, relating to them.

As monsters by excess are *viable*, or capable of living, so, by the law of France as already quoted, they are capable of inheriting. Those by defect, and par-

Phil. Transactions, vol. 80, p. 296; and vol. 89, p. 28.

† A very curious case of deficiency of fingers (apparently hereditary) in a whole family, is related in Edinburgh Med. and Surg. Journal, vol. 4, p. 252.

‡ The following are instances of this nature. A female named *Amidée Bissieu*, in France, at whose death, at the age of fourteen, a fœtus was found in the abdomen. Edinburgh Med. and Surg. Journal, vol. 1, p. 376.—A child aged nine months, examined by G. W. Young, Esq. Medico-Chirurg. Transactions, vol. 1, p. 194.—A girl aged two years and a half, examined by Dr Phillips of Andover. Ibid. vol. 6, p. 124.—In the London Med. Repository, (vol. 4, p. 4)4, there is a reference to three other cases; and an account is also given of a fœtus found by Mr. Highmore, in the abdomen of a young man who died in 1814, aged sixteen years, at Sherborne in Dorsetshire. A case is also mentioned as occurring in Austria in 1812. It is related by Prochaska. London Med. Repository, vol. 6, p. 330.

ticularly the acephalous, are to be considered as still born—incapable of living,* and this opinion must be enforced in proportion to the importance of the organs that are wanting. Concerning the last class, there can seldom be any controversy, as the malconformation is ordinarily not discovered until after death.

The English law is thus stated by Blackstone:—“A monster which hath not the shape of mankind, but in any part evidently bears the resemblance of the brute creation, hath no inheritable blood, and cannot be heir to any land, albeit it be brought forth in marriage; but although it hath deformity in any part of its body, yet if it hath human shape, it may be an heir.” This he adds, is a very ancient rule in the law of England; and observes, that “the Roman law agrees with our own in excluding such births from succession, yet accounts them, however, children in some respects, where the parents, or at least the father, could reap any advantage thereby, esteeming them the misfortune, rather than the fault of that parent. But our law will not admit a birth of this kind to be such an issue, as shall entitle the husband to be tenant by the curtesy, because it is not capable of inheriting.”†

As there are instances in which the issue should be male, in order to inherit, it will be proper to repeat a caution already given—not to mistake the enlarged state of the clitoris, which is very common at birth, for male organs. Fodere mentions instances where females have, in consequence of this, been inscribed in the baptismal registers as males; and in one case, the individual was called out under the conscription law.‡

AS EXTRA-UTERINE FŒTUSES have never been

* There are, however, instances in which acephalous monsters have lived for a short time. Mr. Lawrence mentions one, which although deficient in brain and cranium, was perfectly formed in all its other parts, and lived four days. Some valuable physiological remarks on these productions, may be found in the *Edinburgh Med. and Surg. Journal*, vol. 11, p. 351.

† Blackstone, vol. 2, p. 246.

‡ Foderè, vol. 2, p. 179.

brought forth alive, there can, of course, no question arise concerning them.*

* When I wrote this, I had not seen the cases mentioned in the New-England Journal, vol. 8, p. 118 and 403; one by Dr. Delisle of Paris, and the other by Mr. King of South-Carolina. In both instances, extra-uterine fœtuses *are said* to have been extracted, by cutting through the vagina. The first lived three quarters of an hour, and the second seems to have survived at the time when the narrative was written. Should a legal question ever occur concerning such, I presume the same provisions which are in force respecting those extracted by the cæsarean operation would guide here.

CHAPTER VIII.

INFANTICIDE.*

1. History of infanticide among different nations, ancient and modern.—2. Definition of infanticide—of the murder of the fœtus in utero, or criminal abortion—period at which the fœtus is to be considered as possessing life—proofs of abortion derived from an examination of the living and dead mother—causes of abortion, criminal and involuntary—examination of the fœtus.—3. Of the murder of the child after it is born—proofs of infanticide derived from an examination of the child—proofs of the blood having circulated after birth—(a) appearance of the blood—(b) ecchymosis—proofs of respiration having taken place after birth—(a) of the floating of the lungs in water—examination of the objections to this test—(b) Ploucquet's test—examination of objections to this test—(c) Daniel's test—(d) descent of the diaphragm—(e) diminution of the size of the liver—(f) discharge of the meconium—(g) state of the urinary bladder—Capability of the child's living after birth—The various means used for perpetrating infanticide—infanticide by omission—infanticide by commission.—4. Of the method of conducting anatomical examinations in cases of infanticide.—5. Prevention of infanticide—history of legislation on the subject of infanticide—foundling hospitals.

In discussing the subject of Infanticide, the following order will be observed :

1. The history of infanticide as it has prevailed in different nations, ancient and modern.
2. The murder of the fœtus in utero, or criminal abortion, embracing an account of its proofs and causes.

* I am indebted for this chapter to my brother, John B. Beck, M. D. of New-York. It is well known that Infanticide formed the subject of his Inaugural Dissertation in 1817; and I trust fraternal partiality will be pardoned, when I cite the following testimonics in commendation of it. "I have been favoured," says Dr. Smith of London, in the preface to his work on legal medicine, "with the perusal of an inaugural dissertation on infanticide, by Dr. Beck of New-York, which has afforded me great satisfaction. It is but justice," he adds, "to mention, that the American schools have outstripped us in attention to forensic medicine." The Editors of the American Medical Recorder (vol. 2, p. 432,) remark, that "this dissertation is unquestionably the most complete in all its parts, that we have ever seen on this subject." Judge Cooper, also, in several parts of his Tracts on Medical Jurisprudence, speaks of it with high approbation. At my request, my brother consented to revise the subject matter of his dissertation, and prepare it for publication in the present work. This he has accordingly done; and the chapter will be found to contain much valuable and original matter, not embraced in his previous essay.

T. R. B.

3. The murder of the child after it is born, with an account of its various proofs and causes.

4. The method of conducting anatomical examinations in cases of infanticide.

5. Prevention of infanticide, including a history of legislation on the subject, and an examination of the effects of foundling hospitals.

1. *Of the history of infanticide, as it has prevailed in different nations, ancient and modern.*

It is a fact no less melancholy than astonishing, that a practice so unnatural as that of infanticide, should ever have prevailed to any extent. Its existence might have been supposed possible in those unhappy regions of our earth, where untutored passion and brutal sense reign triumphant over reason and morality ; but that the fairest portions of society, where genius, science, and refinement had taken up their abode, should have been disgraced by a crime so disgusting, is one of those anomalies in the history of human feeling and conduct, which irresistibly prove how perfectly arbitrary and undefined are the laws of justice and humanity, when unguided by the principles of true religion. The fact, however, is not more astonishing than true. A slight review of its history, will show us that this practice prevailed in almost all the ancient nations, and that it is not even yet blotted from the list of human crimes.

The *laws of Moses* are silent on the subject of infanticide ;* and from this circumstance we should be led to conclude, that the crime was unknown among the Jews at that period of their history, and therefore that any positive prohibition of it was considered unnecessary. The penal code of the Jews is so very minute on the subject of murder in general—considers it so atrocious a crime, and denounces such terrible punishments against the perpetrators of it, that it is wholly incredible that the murder of infants would

* Michaelis' Commentaries on the Laws of Moses, vol. 4.

have been countenanced by their illustrious legislator. This conclusion is further confirmed by the considerations, that barrenness was esteemed one of the greatest misfortunes which could befall a Jewish woman, and that the Jews were all desirous of a progeny, because each cherished the hope that the Messiah might be numbered among his descendants. These facts prove that every inducement was held out for the propagation of children, and none to countenance their destruction. At a subsequent period, when they became contaminated by their intercourse with the Canaanites, we find the Jews imitating* the example of their king Manasseh, who sacrificed his son to the idol Molech.† These horrid sacrifices were suppressed by king Josiah, who commanded, “that no man might make his son or his daughter to pass through the fire to Molech.”‡ And Tacitus, in describing the manners of the Jews of his day, says that they were not allowed to put their children to death.¶

The nations surrounding the Jews appear to have been addicted to the sacrifice of children. Of these, the *Canaanites* are described as “sacrificing their sons and their daughters unto devils, and shedding innocent blood, even the blood of their sons and their daughters, whom they sacrificed unto the idols of Canaan.”§

Among the *Egyptians*, infants were treated with more humanity; yet instances are not wanting of the greatest cruelty towards them. A memorable one is found in the commission of Pharaoh to the midwives, to murder all the male offspring of the Jews. Their own children, however, were treated with greater tenderness; and they are accordingly, on this account, mentioned with honour by some of the writers of other countries. Strabo, in particular, speaks of them as an honourable exception to those nations who exercised the right of life and death over their infants.¶¶

* Jeremiah, vii. 31; and xix. 5.

† 2 Kings, xxiii. 10.

§ Psalm cvi. 37, 38.

† 2 Chron. xxxiii. 6. 2 Kings, xxi. 6.

¶ Hist. Lib. v. chap. 5.

¶ Beckman on Invent. vol. 4, p. 435.

Among the *ancient Persians*, it was a common custom to bury children alive. Herodotus tells us of Amestris, the wife of Xerxes, who, at an advanced age, ordered fourteen Persian infants, of illustrious birth, to be interred alive, in honour of one of the deities of the country.*

In most of the *Grecian states*, infanticide was not merely permitted, but actually enforced by law. The Spartan lawgiver expressly ordained, that every child that was born should be examined by the ancient men of the tribe; and that, if found weak or deformed, it should be thrown into a deep cavern at the foot of Mount Taygetus, called *Apothetæ*, "concluding that its life could be of no advantage either to itself or to the public, since nature had not given it at first any strength or goodness of constitution."† This practice was not, however, upheld merely by the sanction of law; it was defended by the ablest men of Greece. Aristotle, in his work on government, enjoins the exposure of children that are naturally feeble and deformed, in order to prevent an excess of population. He adds, "if this idea be repugnant to the character of the nation, fix at least the number of children in each family; and if the parents transgress the law, let it be ordained, that the mother shall destroy the fruit of her body before it shall have received the principles of life and sensation."‡ The mild Plato also justifies this practice. In his Republic, he directs that "children born with any deformity, shall be removed and concealed in some obscure retreat."§

Of the existence of infanticide at *Athens*, we have the testimony of the comic poets, who, in describing the manners of that city, frequently allude to the exposure of children.¶

Thebes, however, exhibited a noble contrast to the rest of Greece. By one of her laws, it was expressly

* Beloe's Herodotus, vol. 4, p. 37.

† Plutarch's Lives, translated by Langhorne, vol. 1, p. 142.

‡ Travels of Anacharsis, vol. 5, p. 270. || Ibid. vol. 4, p. 342.

§ Vide Quarterly Review, vol. 2, p. 389, for quotations from Terence and Plautus.

forbidden to imitate the other Grecian cities, who exposed their children at their birth.*

But of all the nations of antiquity, the *Romans* were the most unrelenting in their treatment of infants. The Roman father was vested with an absolute authority over the lives and fortunes of his children,† and we have abundance of testimony to show that the right was commonly exercised. This barbarous prerogative was coeval with the existence of Rome, and continued to triumph over justice and humanity during the lapse of many ages, until Christianity wrested it from her. Romulus authorised the destruction of all children that were deformed. He, however, required the parents to exhibit them to their five nearest neighbours, and to obtain their consent to their death.‡ The law of the Twelve Tables, enacted in the 301st year of Rome, sanctioned the same barbarous practice.¶ After this, even the slight restrictions which Romulus had imposed upon parents, appear to have been removed, and an unqualified jurisdiction surrendered to the father over the lives of his children, even after they had arrived to years of maturity. Sallust mentions an instance of the latter. “Fuere tamen extra conjurationem complures, qui ad Catalinam initio profecti sunt: in his A. Fulvius, senatoris filius; quem retractum ex itinere, *parens jussit necari*.”—Sallust, Cat. xxxix.

The procuring of *abortion*, which can be considered no less than murder, was also notoriously prevalent among the Romans. Juvenal thus speaks of that nefarious practice :

Hæ tamen et partus subeunt discrimen et omnes
Nutricis tolerant, fortuna urgente, labores
Sed jacet aurato vix ulla puerpera lecto ;
Tantum artes hujus, tantum medicamina possunt,

* Travels of Anacharsis, vol. 3, p. 277.

† The right of parents over their children is thus stated in the Justinian Institutes, Lib. 1. Tit. ix. p. 22. Cooper's edit. Jus autem potestatis, quod in liberos habemus, proprium est civium Romanorum; nulli enim alii sunt homines, qui talem in liberos habeant potestatem, qualem nos habemus.

‡ Montesquieu's Spirit of Laws, vol. 1, p. 104. Lond.

¶ Cooper's Justinian, p. 659.

Quæ steriles facit, atque homines in ventre necandos
Conducit*——Juv. Sat. vi. 592.

Minucius Felix thus describes the barbarity of the Romans in this respect : “ I see you exposing your infants to wild beasts and birds, or strangling them after the most miserable manner. Nay, some of you will not give them the liberty to be born, but by cruel potions procure abortion, and smother the hopeful beginning of what would come to be a man, in his mother’s womb.”† Pliny the Elder himself defends the right of parents to destroy their children, upon the ground of its being necessary to preserve the increase of population within proper bounds.

Such was the practice of ancient Rome from her first origin down to the time of Constantine the Great. During the days of her greatest political grandeur it was carried to the highest excess ; and whilst she was boasting of her refinement, and casting the opprobrious epithet of barbarian on all around her, she was guilty of the basest profligacy, and the most hardened cruelty. Christianity first opposed a barrier to the desolations of this crime ; her mild and humane spirit could not but discountenance it ; and accordingly it animated all who were arrayed under her peaceful banners, to exert their energies in arresting its progress. The christian writers of that day are full on this point. Tertullian, in his *Apology*, expresses himself with heroic boldness on the subject : “ How many of you,” (addressing himself to the Roman people, and to the governors of cities and provinces,) “ might I deservedly charge with infant murder ; and not only so, but among the different kinds of death, for choosing some of the cruelest for their own

* “ Yet these, though poor, the pain of childbed bear,
And without nurses their own infants rear.
You seldom hear of the rich mantle spread
For the babe, born in the great lady’s bed.
Such is the power of herbs ; such arts they use
To make them barren, or their fruit to lose.”

Dryden’s Juvenal.

† Octav. Minucii Felicis, ch. xxx.

children, such as drowning or starving with cold or hunger, or exposing to the mercy of dogs ; dying by the sword being too sweet a death for children, and such as a man would choose to fall by sooner than any other ways of violence. But christians now are so far from homicide, that with them it is utterly unlawful to make away a child in the womb, when nature is in deliberation about the man ; for to kill a child before it is born, is to commit murder by way of advance ; and there is no difference, whether you destroy a child in its formation, or after it is formed and delivered ; for we christians look upon him as a man who is one in embryo ; for he is a being like the fruit in blossom, and in a little time would have been a perfect man, had nature met with no disturbance.”* In A. D. 315, Constantine the Great enacted a law providing for the maintainance and education of those children whose parents were too poor to do the same.† He also ordered a severe punishment to be inflicted on a cruel father. This was the first time that the authority of the government had interposed to arrest this crime ; and it is not to be supposed, that a custom which had become so familiar to all the habits and feelings of the Roman people would be immediately suppressed : and accordingly we find that it still continued to prevail, though in a less degree, until the end of the 4th century, when it was finally exterminated by the emperors Valentinian, Valens, and Gratian.

The *Phenicians* and *Carthagenians* were in the habit of sacrificing infants to their gods. The latter had a law by which four children of noble birth were regularly immolated upon the altars of Saturn.‡ History records a melancholy instance of the superstition and cruelty of these deluded people. It is related, that they attributed their defeat by Agathocles, king of Sicily, to an omission of these sacrifices, and in or-

* Reeves' Apologies, &c. vol. 2, p. 190.

† Ant. Univ. Hist. vol. 15, p. 576.

‡ Ibid. vol. 17, p. 257

der to atone for their past neglect, they offered up, at one time, two hundred of the sons of their nobility.

Silius Italicus notices this custom :

“ Mos fuit in populis, quos condidit Advena Dido.
 Poscere cæde deos veniam, ac flagrantibus aris
 (Infandum dictu) parvos imponere natos.” Lib. 4.

The *ancient Germans*, although in the habit of sacrificing prisoners taken in battle, do not appear to have been addicted to the crime of infanticide. Tacitus, in describing their manners, mentions a contrary practice as one of the peculiarities distinguishing their character : “ Numerum liberorum finire, aut quemquam ex agnatis necare, flagitium habetur.”*

Among the *Visigoths*, the murder of infants was a common crime. Chindaswinthus, one of their kings, in his laws, describes the procuring of abortion, as well as the murder of children after they are born, as practices that were prevalent in the provinces, and denounced severe penalties on the perpetrators of those crimes.†

But *infanticide* was not confined to the ancients. It has descended to modern nations, and at the present day disgraces Eastern and Southern Asia by its enormities.

The *Chinese* are notorious for their cold indifference in the exposure and murder of their children. According to Mr. Barrow, the number of children exposed in Pekin alone, amounts to 9000 annually. No law exists to prevent it. On the contrary, it appears rather to be encouraged, inasmuch as persons are employed by the police of the city to go through the different streets every morning in carts, to pick up all the children that may have been thrown out during the night. “ No inquiries are made ; but the bodies are carried to a common pit without the walls of the city, into which all, whether dead or living, are promiscu-

* De Morib. Germ. xix.

† Ryan on the Effects of Religion on Mankind, p. 110.

ously thrown.”* The practice is not confined to the capital ; it prevails also in other parts of the country. It is calculated that the number of infants destroyed in Pekin, are about equal to that of all the rest of the empire.† Almost all those that are exposed are females. The causes assigned for its prevalence, are extreme poverty, arising from an overgrowth of population—frequent and dreadful famines springing from the same cause—the natural coldness of affection in the Chinese—together with the sanction of custom, and the want of any law forbidding it.‡

Among the *Hindoos*, infanticide presents itself in a form still more horrible. It is incorporated into their system of religion, and its atrocities are beyond description. The blood of their infants seems to have quenched completely the sacred flame of humanity, while the lights of reason and truth are extinguished by the absurdities of superstition. This crime has existed among them for at least 2000 years, for Greek and Roman historians notice it, and refer to some of the very places where it is now known to exist.¶ The number of infantile murders in the provinces of Cutch and Guzerat alone, amounted, according to the lowest calculation in 1807, to 3000 annually ;§ according to another computation, 30,000. Females are almost the only victims. In defence of the practice, they urge the difficulty of rearing female children, the expense attending their education, and the small probability of their ever being married.¶ Within a few years, through the benevo-

* Barrow's Travels in China, p. 113. Am. ed.

† Ibid. p. 114. Also De Pauw's Philosophical Dissertation on the Egyptians and Chinese. Quarterly Review, vol. 2, p. 255.

‡ Mr. Ellis, in his Journal of the British Embassy to China, in 1816, expresses some doubts with regard to the frequency of infanticide in China, and at the same time is of opinion that the population has been greatly overrated. Vol. 2, p. 209.

¶ Buchanan's Researches in Asia, Eng. ed. p. 49. Ward's View of the History, Literature, &c. of the Hindoos. Also Moor's Hindu Infanticide, &c. Review of the same in Quarterly Review, vol. 6, p. 210.

§ Buchanan's Researches in Asia, p. 49.

¶ Dr. Buchanan states, that two modes of putting the child to death, are principally prevalent. As soon as it is known to be a female, a piece of opium is put into its mouth ; or the umbilical cord is drawn over its face, which, by preventing respiration, destroys it. Researches in Asia, p. 47.

lent exertions of some of the subjects of Great Britain, infanticide has been completely abolished in many of the provinces. Mr. Duncan, governor of Bombay, Marquis Wellesley, and Col. Walker, were the persons who took the lead in this affair, and by whose energy and perseverance, results, so honourable to themselves, and which may be expected to have a beneficent influence on the progress of civilization, were accomplished.

Previously to the late conversion of *Otaheite* to Christianity, infanticide was so common, that it threatened the complete depopulation of the island. According to a late voyager,* at least two-thirds of the children born were destroyed. The effect which it had in diminishing the number of inhabitants, was astonishing; and affords a strong fact in refutation of the doctrines of Malthus, who maintains that the practice of destroying children has a direct tendency to augment population.

In 1774, when Captain Cook visited the island, he found it to contain 204,000 souls.† In less than thirty years after, this terrestrial paradise, blessed with a genial climate and a luxuriant soil, was reduced to 5000 inhabitants.‡ Turnbull relates, that “the missionaries made two tours whilst he was in the island, and in each of which they numbered the people; according to the first calculation they were 7000, but in the last they very little exceeded five.”||

It is not to be supposed that this enormous diminution of population is to be attributed solely to this cause; other causes have doubtless co-operated, particularly certain diseases which prevail to a great extent, such as fevers, dysentery, phthisis pulmonalis, and scrofula.§ All travellers, however, who have visited the island, concur in the opinion, that the effects of infanticide are infinitely more injurious to the population, than all the other causes combined.

* Turnbull's Voyage round the World in 1800, 2, 3, and 4.

† Cook's second voyage, vol. 1, p. 349.

‡ Turnbull, vol. 3, p. 77.

|| Ibid. vol. 3, p. 778.

§ Edin. Med. & Surg. Jour. vol. 2, p. 284—90.

The natives of *New-South-Wales* resort to violent and unnatural compression of the body of the mother, in order to procure abortion. This process is called by them *Mee-bra*. Another practice still more shocking prevails, of burying a child with its mother, if she happens to die.*

Among the *Hottentots*, infanticide appears to be a common crime. Barrow describes a race of them called *Bojesmans*, who destroy their offspring on various occasions: as “when they are in want of food; when the father of a child has forsaken its mother; or when obliged to fly from the boors and others; in which case they will strangle them, smother them, cast them away in the desert, or bury them alive.”†

The *Mahometans* do not appear to attach any criminality to child-murder;‡ on the contrary, the very sources of honour and authority among them are polluted by it. Even the palace of the Sultan is constantly stained by the blood of infants. Thornton states, that the offspring of the younger princes of the royal family, who are kept in honourable confinement in the palace, are destroyed as soon as they are born.¶ And Blacquiere accounts for the smallness of the number of children belonging to the Bashaw of Tripoli, from the fact of his encouraging his wives to evade their accouchements.§

Even in *Iceland*, we find traces of this inhuman crime. That island, which appeared in the distant horizon as a watch-tower of genius and learning, at a time when ignorance and superstition waved their triumphant banners over the prostrate glories of Europe; along whose majestic mountains, and in whose sacred retreats, poesy was still heard to sing, when her notes

* Collins' account of the colony of New-South-Wales, p. 124, 5. Edin. Review, vol. 2, p. 34.

† Barrow's account of a journey in Africa in 1801 and 2, p. 378, 9.

‡ It is proper to state, that the Koran forbids it; and in the oath which Mahomet required of the women who joined his party, called the “women's oath,” the prohibition of infanticide was distinctly mentioned. Buck's Theol. Dict. Art. Mahomet.

¶ The present state of Turkey, &c. by T. Thornton, Esq. vol. 1, p. 120.

§ Letters from the Mediterranean, by E. Blacquiere, Esq. vol. 1, p. 90.

were lost at Athens and at Rome, and from whose shores eloquence continued to roll her thunders over the billows of the ocean, when her tongue was palsied in the forum and the senate; even in this island, so celebrated and so favoured, the detestable crime of exposing infants was at one time not prohibited. The custom appears to have been derived from their Norwegian ancestors, among whom it continued to prevail for nearly one hundred years after it had been abolished in Iceland. It became extinct shortly after the introduction of Christianity into the island, which event took place at the end of the tenth century.*

If we turn our attention from the OLD WORLD, and direct it to the NEW, we shall find this crime presenting itself under forms no less horrible and disgusting.

Among the natives about *Hudson's Bay*, it is common for the women to procure abortion by the use of a certain herb which grows there.†

In *Labrador*, the Moravian missionaries who first landed there, found it a prevailing custom to put to death their widows and orphans; not to gratify a natural ferocity of disposition, but merely on account of a supposed inability to provide the means of support for the helpless orphan or the desolate widow of another. By the exertions of the missionaries, the practice was arrested.‡

Nor were the savages of these inclement regions the only people who were guilty of this horrid crime. The gloomy superstition of the *Mexicans*, delighted in human sacrifices, and the altars of their divinities were continually drenched with the blood of infants and of men.§ The number of these sacrifices has doubtless been exaggerated, but the fact is unquestionable, that countless victims poured forth their lives to appease or conciliate their imaginary deities.

* Dr. Holland's Preliminary Dissertation on the History and Literature of Iceland, in Sir G. Mackenzie's Travels. Edin. 2d ed. p. 39.

† Ellis' Voyage to Hudson's Bay, p. 198.

‡ Barrow's Account of a Journey in Africa in 1801 and 2. Edinburgh Review, vol. 8, p. 438.

§ Robertson's History of America, vol. 3, p. 325.

The mothers in *California* are described as voluntarily destroying their offspring. Venegas states, that the common cause of it was a scarcity of food, and that the practice was put a stop to by the father *Salva-Tierra*, who ordered a double allowance to be given to women newly delivered.*

Charlevoix describes a race of savages in North America, who make a practice of destroying all infants who are so unfortunate as to lose their mothers before they are weaned; at the same time, they inter alive all the other children, upon the plea that no other female can nurse them properly.†

The *Peruvians*, whom Dr. Robertson eulogizes for the mildness of their manners, and the benevolent spirit of their religion,‡ were nevertheless in the habit of sacrificing children. Acosta tells us, that in such cases as the sickness of the Inca, or doubtful success in war and other affairs, ten children were sacrificed; and upon the coronation of the Inca, 200 were offered up. When a Peruvian father was taken sick, he sacrificed his son to *Viriachocha*, (the sun) beseeching him to accept of the life of his child, and to save his own. The same writer, when comparing the Peruvians and Mexicans, describes the former as exceeding the latter in the sacrificing of *children*, while the latter were chiefly addicted to the sacrifice of *men* taken in battle, of whom they murdered an immense number. Robertson endeavours to rescue them from this charge, by invalidating the testimony of Acosta. He cannot, however, help confessing, that the practice did prevail among “their uncivilized ancestors,” but he adds, “that it was totally abolished by the Incas, and that no human victim was ever offered in any temple of the sun.” He admits, moreover, that “in one of their festivals, the Peruvians offered cakes of bread moistened with blood drawn from the arms, the

* Hist. of California, by Miguel Venegas. Lond. 1759, vol. 1, p. 82.

† Journal d'un Voyage à L'Amerique Septentrionale, par le P. De. Charlevoix, à Paris, 1744, vol. 3, p. 368.

‡ History of America, vol. 3, p. 335.

eyebrows, and noses of their children. This rite may have been derived," he says, "from the ancient practice in their uncivilized state, of sacrificing human victims."*

Besides those that have been enumerated, travelers record the names of other tribes and nations inhabiting this vast continent, who murder their children with impunity and without remorse. They tell us of the *Abiponians*, a migratory race, inhabiting the province of Chaco in Paraguay, among whom, mothers have been known to destroy all their children as soon as they were born.† And of the *Araucanians*, a powerful nation of Chili, who permit fathers and husbands to kill their children and wives.‡

But it is unnecessary to extend this sketch any further. Enough has been recorded to give a view of the wide spread desolations of this unnatural crime; certainly too much for the honour of human nature.||

2. *Of the murder of the fœtus in utero, or criminal abortion, embracing an account of its proofs and causes.*

By INFANTICIDE in its most extensive signification, is understood, the *criminal destruction of the fœtus in utero, or of the child after it is born*. Under this enlarged view, I propose to discuss it at the present time.

Of the murder of the fœtus in utero. Before proceeding to any enquiry into the *signs* by which it may be known that fatal violence has been done to the fœtus in utero, it becomes necessary to settle a preliminary question of much importance, which is to ascer-

* Hist. of America, vol. 3, p. 429. † Edin. Encyclop. Art. Abiponians.

‡ Edin. Encyclop. Art. America.

|| To the honour of our North American Indians, it deserves to be mentioned, that they are not known to be guilty of this horrid crime. Mr. Heckewelder, in his interesting account of the Indians who inhabited Pennsylvania and the neighbouring states, says, "I have never heard of any nation or tribe of Indians who destroyed their children when distorted or deformed, whether they were born so, or came to be so afterwards."—Page 216.

tain the period of gestation when the foetus is to be considered as endowed with life.

In reviewing the various opinions which have been advanced on this subject at different periods, it will abundantly appear, that too often fancy has usurped the prerogative of reason, and idle speculation been substituted in the place of rational investigation. The consequence has been, that doctrines have been promulgated, not only the most erroneous and absurd in their nature, but the most dangerous in their tendencies, to the happiness of individuals, and to the best interests of society.

The ancients were by far the most extravagant in their notions on this subject. The same fundamental error, however, pervaded all their theories. They believed that the sentient and vital principle was not infused into the foetus, until some time after conception had taken place. It is not surprising that the exact time at which this union is effected, could never be satisfactorily settled by them. According to *Hippocrates*, the male foetus became animated in thirty days after conception, while the female required forty-two.* In another part of his works he asserts, that this does not occur until the perfect organization of the foetus.

The *Stoics* believed that the soul was not united to the body before the act of respiration, and consequently, that the foetus was inanimate during the whole period of utero-gestation.† This doctrine prevailed until the reigns of Antoninus and Severus, when it gave way to the more popular sentiments of the sect of the *Academy*, who maintained, that the foetus became animated at a certain period of gestation. The *Canon Law* of the church of Rome, also distinguished between the animate and inanimate foetus, and punished the destruction of the former with the same severity as homicide.‡

* Lib. de Nat. Puer. Num. 10. † Plutarch's Morals, vol. 3, p. 230. Lon.

‡ P. Zacchiæ Quæst. Med. Leg. lib. ix. tit. 1, 2, 5, p. 744.

Galen considers the animation of the foetus to take place on the fortieth day after conception, at the same time that he supposed the foetus to become organized.*

Others believed shorter periods sufficient, and accordingly three days and seven have respectively had their advocates.† Another contends, that eighty days are requisite for the animation of the female, while only forty are necessary for the male.‡ Some advocate forty days as sufficient for both.¶ Others again make a distinction between the imperfect embryo and the perfectly formed foetus, and consider abortion of the latter as a crime deserving the same punishment as homicide—a distinction, of which it is justly remarked by a celebrated writer on medical jurisprudence, “ennemie de la morale et de l’humanité, digne de l’ignorance et des préjugés de ses auteurs.”§

Amidst these discordant sentiments, Zacchias offers himself as a mediator, and proposes sixty days as the limit, and recommends that any one who should cause an abortion after that period, whether of male or female, should be punished for homicide.¶¶

All the foregoing opinions, wholly unsupported either by argument or experiment, might be dismissed without a comment, were it not to point out the evils to which they have given rise. It may be said of them with perfect truth, that their direct tendency has been to countenance, rather than to encourage abortion, at least in the earlier stages of pregnancy. On a subject of this nature, it was to be supposed that legal decisions would be influenced in a great measure by the opinions of philosophers and physiologists; and accordingly, while the delusion of the Stoics continued its sway, the law could view nothing very criminal in wilful abortion,** as the foetus was considered merely *portio viscerum matris*.†† And afterwards, when the Academicians flourished, punish-

* Opera Galeni, de Usu Part. lib. 15, cap. 5. Lugduni, 1643.

† Zacchiæ, lib. 1, tit. 2, Q. x. p. 82.

‡ Ibid. lib. 1, tit. 2, Q. x. p. 82.

¶ Ibid. lib. 1, tit. 2, Q. x. p. 83.

¶¶ Plutarch's Morals, vol. 3, p. 230.

‡ Ibid.

§ Foderè, vol. 4, p. 484.

** Foderè, vol. 4, p. 382.

ments very different, in the degree of their severity, were inflicted, according as the abortion was supposed to be that of an animate or inanimate fœtus.*

In modern times, an error no less absurd, and attended with consequences equally injurious, has received the sanction, not merely of popular belief, but even of the laws of most civilized countries. The error consists in denying to the fœtus any vitality until after the time of quickening. The codes of almost every civilized nation have this principle incorporated into them; and accordingly, the punishment which they denounce against abortion procured after quickening, is much severer than before. The *English law* “considers life not to commence before the infant is able to stir in its mother’s womb.”† The *law of Scotland*, adopting the creed of the Stoics, believes the fœtus in utero, previous to quickening, to be merely pars viscerum matris. In *Saxony*, in consequence of the disputes of medical men on this subject, it was formally decided, that the fœtus might be esteemed alive after the half of pregnancy had gone by.‡

The absurdity of the principle upon which these distinctions are founded, is of easy demonstration. The fœtus, previous to the time of quickening, must be either dead or alive. Now, that it is not the former, is most evident from neither putrefaction nor decomposition taking place, which would be the inevitable consequences of an extinction of the vital principle. To say that the connexion with the mother prevents this, is wholly untenable: facts are opposed to it. Fœtuses do actually die in the uterus before quickening, and then all the signs of death are present. The embryo, therefore, before that crisis, must be in a state different from that of death, and this can be no other than life.

But if the fœtus enjoys life at so early a period, it may be asked, why no indications of it are given be-

* Foderè, vol. 4, p. 382.

† Blackstone, vol. 1, p. 129.

‡ Specimen Juridicum Inaugurale, p. 46. Auctore Van Visvliet. Lugduni Batavorum, 1760.

fore the time at which quickening generally takes place? To this it may be answered, that the absence of any consciousness on the part of the mother, relative to the motions of the child, is no proof whatever that such motions do not exist. It is a well known fact, that in the earlier part of pregnancy, the quantity of the liquor amnii is much greater in proportion to the size of the fœtus, than at subsequent periods. Is it not, therefore, rational to suppose, that the embryo may at first float in the waters without the mother being conscious of its movements, but that afterwards, when it has increased in bulk, and the waters are diminished in proportion, it should make distinct and perceptible impressions upon the uterus? Besides, it should not be forgotten, that fœtal life at first must of necessity be extremely feeble, and therefore it ought not to be considered strange that muscular action should also be proportionably weak.

But granting, for the sake of argument, that the fœtus does not stir previously to quickening, what does the whole objection amount to? Why, only that one evidence of vitality, viz. motion, is wanting; and we need not be told that this sign is not essential to the existence of life.*

The *incompleteness* of the embryo previous to quickening, is no objection to its *vitality*. Life does not depend upon a complication of organs; on the contrary, it is found that some of the simplest animals, as the polypi, are the most tenacious of life. Besides, upon this principle, vitality must be denied to the child after birth, because many of its bones, as well as other parts of its body, are imperfect.

Nor is the *want of organic action* any argument against this doctrine. Life appears to depend essen-

* There is a difference of opinion as to the real nature of quickening. It has been lately suggested by a writer, that it is altogether independent of any motion of the child, and that it is to be attributed to the sudden rising of the uterus out of the pelvic cavity into the abdomen. (London Med. and Phys. Journal, vol. 27, p. 441.) If this opinion be true, it would afford another incontrovertible argument in favour of the position which I have advocated.

tially as little upon organic action, as it does upon a complication of organs. If it did, the fœtus, after quickening, would be just as destitute of life as before, for its brain, lungs, stomach, and intestinal canal, perform no more action at the eighth month than they do at the third. But if organic action be essential to life, how are we to account for those singular cases of fœtuses born alive, and yet destitute of some of the most important organs in the body, such as the head, brain, &c ?* and how are we to explain those temporary suspensions of organic action in the bodies of adults, which sometimes happen, without the principle of life being extinguished ?

The observations of physiologists tend also to prove the vitality of the fœtus previously to quickening. According to Richerand,† blood is perceived about the seventeenth day after conception, together with the pulsation of the heart, and not long after the different organs have commenced their developement. The correctness of this statement is confirmed by the observations of Blumenbach, Magendie, and others. Mauriceau relates, that he saw a fœtus of about ten weeks that was alive, moved its arms and legs, and opened its mouth.‡ Haller, indeed, asserted, “that all the viscera and bones of the future fœtus, nearly fluid indeed, and therefore invisible, were preformed before conception in the maternal germ.” However objectionable such an opinion may be, yet the fact is certain, that *the fœtus enjoys life long before the sensation of quickening is felt by the mother*. Indeed, no other doctrine appears to be consonant with reason or physiology, but that which admits the embryo to possess vitality from the very moment of conception.

If physiology and reason justify the position just laid down, we must consider those laws which treat

* Saumarez' Physiology, vol. 2, p. 21. Review of Sir E. Home's paper on the Functions of the Brain. Edin. Review, vol. 24, p. 439.

† Richerand's Physiology, p. 539. Am. ed.

‡ Burton's Midwifery, p. 88.

with less severity the crime of producing abortion at an early period of gestation, as immoral and unjust. They tempt to the perpetration of the same crime at one time, which at another they punish with death. In the language of the admirable PERCIVAL, "to extinguish the first spark of life, is a crime of the same nature, both against our Maker and society, as to destroy an infant, a child, or a man: these regular and successive stages of existence being the ordinances of God, subject alone to his divine will, and appointed by sovereign wisdom and goodness, as the exclusive means of preserving the race, and multiplying the enjoyments of mankind."*

Proofs of abortion derived from an examination of the mother. In the early months of pregnancy, it is extremely difficult to ascertain whether an abortion has taken place or not. The fœtus has scarcely had time to make those firm attachments which afterwards unite it to the womb, nor has it attained to a sufficient size to effect these general changes in the constitution of the mother, nor those local alterations from the distention of the uterus and abdomen, which are afterwards produced. Its separation is, therefore, unattended by violence, and leaves but faint, if any traces of its previous existence. The hæmorrhage attending it is also of small consequence, as the uterine vessels have not yet sustained any particular enlargement, and therefore speedily contract.

In abortions at the middle or end of pregnancy, this obscurity does not attend us. The characteristics are then sufficiently evident for our guidance. There is considerable hæmorrhage from the enlarged vessels of the uterus previously to the contraction of the womb—there is an offensive discharge of blood and mucus from the vagina, distinguished from the menstrual flux by this circumstance, and by its longer continuance; the menses continuing usually only three or four days, while the lochia do not cease flowing under

* Percival's Works, vol. 2, p. 430, 1.

seven or eight—the vagina is considerably dilated, and the os uteri open—the labia are red, soft, and inflated—the breasts are swollen, and milk flows from them—the areolæ of the nipples are larger and darker coloured than usual—and the abdomen is flaccid, rugous, and pendulous.*

If the abortion ends in the death of the mother, it may sometimes be necessary to settle the point after her death, as in cases where another person is accused of having procured it by the administration of medicines, &c. which may have caused not only the death of the child, but also of the mother. The following appearances will be recognized on dissection :

In the early months, no extraordinary appearances are to be detected, as the foetus was expelled perhaps before the placenta was at all, or very slightly, attached to the uterus, so that its separation would leave no visible mark, and from its smallness, it had caused no distention nor thickening of the uterus. But at a later period, the uterus is found enlarged and thickened—its muscular fibres are more evident, and its blood vessels and lymphatics much augmented in size—a rough surface is found where the placenta has been attached—the cervix uteri is relaxed, and the vagina considerably dilated—the ligamenta rotunda are relaxed, and the ligamenta lata nearly effaced, as they furnish the uterus with its external covering. Upon examining the ovaria, if it be done a short time after the ovum has escaped from them, a *corpus luteum* is generally found, which vanishes soon after, but leaves a scar for life.

Such are the evidences furnished by dissection ; and where they are found, afford incontestable proof of the previous existence of a foetus in the uterus. I know that objections have been urged against their validity. A late English writer on this subject, says, “ that the distention of the uterus might arise from

* Zacchias' Quæst. Med. Leg. Foderè. Brendelius. Burns' Midwifery. Male's Med. Jurisprudence, and Dr Stringham's MS. Notes on Legal Medicine.

hydatids, or moles, and the inequality of its internal surface, occasioned by their attachment.”* Let us examine this objection for a moment. That the enlargement of the uterus, the relaxation of the cervix uteri and ligamenta rotunda, as well as the obliteration of the ligamenta lata, may be occasioned by the causes here assigned, will not admit of any dispute ; but the other phenomena cannot possibly be explained, unless by admitting pregnancy to be the cause. Hydatids, although not of frequent occurrence, are sometimes found in the uterus, but they can never occasion the placental mark, nor the preternatural enlargement of the uterine vessels. This will appear obvious from the following facts. The placental surface is between four and five inches in diameter. Now, if any degree of credit is to be attached to the descriptions of hydatids given by distinguished physicians, they are never attached by so extensive a surface. Dr. Denman describes them in the following manner : “ Hydatids, or small vesicles, hung together in clusters from *one common stem*, and containing a watery fluid, are sometimes formed in the cavity of the uterus.”† According to Dr. Baillie, “ they consist of vesicles of a round or oval shape, with *a narrow stalk to each, by which they adhere to the outside of one another*. Some of these hydatids are as large as a walnut, and others, as small as a pin’s head. A large hydatid has generally a number of small hydatids adhering to it by *a narrow process*.”‡ From these descriptions, it is obvious that the surface caused by the attachment of hydatids to the uterus, must be very different from that of the placenta. It would indeed be absurd to imagine that this *narrow stalk* could be of such magnitude as to have a diameter of four or five inches. No less absurd is it to suppose that hydatids can cause such an enlargement of the uterine vessel as takes place in cases of pregnancy ; for, from their very

* Male, p. 120.

† Introduction to the Practice of Midwifery, p. 146. Am. ed.

‡ Merbid Anatomy, p. 136. Am. ed.

constitution, they cannot require any thing like the quantity of blood which is necessary to support the growth of a foetus.

With regard to the *corpora lutea*, the recent observations of Sir Everard Home and others, have shown that they do occasionally exist in the virgin state. Taken alone, therefore, and they are not to be considered as conclusive evidence of previous impregnation. When supported, however, by the other signs which have been enumerated, they must certainly be admitted as corroborative of the fact.*

The preceding observations will apply also to moles, although not with equal force. But in all cases of this kind, where the symptoms of pregnancy are said to arise either from moles or hydatids, it is reasonably to be expected that they should be produced in evidence. If they are not, this very fact would justify more than a *suspicion* of guilt; for no other cause could be assigned for the concealment of a circumstance which would at once place the innocence of the accused upon an unshaken basis.

Such are the *signs* by which an abortion may be recognized. Nothing, however, can be learned from them as to the cause of it, for the symptoms of voluntary and involuntary abortion are precisely the same.

A physician, when called to a case of abortion, is usually directed by practical writers, to make his examinations as speedily as possible after the event is supposed to have taken place, as all the parts from which any inference can be drawn, soon return to their natural dimensions, and then all the signs become obscured. The time in which this takes place is variously stated. According to Zacchias, the signs are most conspicuous during the first *ten days*, and after that, they gradually diminish to the fortieth.† Burns says it is a month after delivery at least, before the

* The signs of impregnation and delivery have been so fully discussed from page 141 to page 152 of this volume, that I deem it unnecessary to enter into further details.

† Quæst. Med. Leg. lib. iii. tit. 2, Q. ix. p. 303.

womb returns to its unimpregnated state†. Dr. Bosstock states, that the complete contraction seldom takes place “in less than eighteen days, and it is often more”.‡

Of the causes of abortion. The practice of causing abortion, is resorted to by unmarried females, who, through imprudence or misfortune, have become pregnant, to avoid the disgrace which would attach to them from having a living child ; and sometimes it is even employed by married women, to obviate a repetition of peculiarly severe labour-pains, which they may have previously suffered. But abortion is not always associated with crime and disgrace ; it may arise from causes perfectly natural, and altogether beyond the controul of the female. The physician should therefore be extremely cautious in his proceedings, even in cases of illegitimate pregnancy, and where the voice of popular prejudice seems to call upon the medical witness merely to confirm its previous, and often false decisions. The causes capable of producing abortion, are various. They all, however, appear to act upon the same general principle, viz. that of interrupting the process of gestation, and exciting the uterus to premature contraction upon its contents, so as to expel them. The *criminal means* which have been resorted to for the purpose of accomplishing this object, may be divided into two classes, viz. the general and local. In the first class, are repeated venesection, drastic purges, emetics, diuretics, emmenagogues, &c. All of these act primarily upon the general constitution of the mother, and produce their effects upon the uterus, only in consequence of the sympathy existing between it and the other parts of the system. Hence it has been remarked by practical observers, that all of them will fail in producing the intended effect, unless used to such an extent, as at the same time to endanger the life of the mother, or unless she labours

† Burns' Midwifery, p. 315.

‡ Vindication of the medical witnesses on the trial of C. Angus, Esq. for the murder of Miss Burns. Liverpool, 1808.

under a previous predisposition to abortion. With the view of more especially illustrating and enforcing this fact, I shall enter into an examination of some of the means which have been used to procure abortion.

Venesection. Hippocrates, if he did not originate, certainly sanctioned the opinion, that the loss of blood during pregnancy, was a certain means of destroying the fœtus.* Countenanced by such high authority, it is not surprising that the opinion should have been universally received, and that venesection should have become one of the popular methods for procuring abortion. Notwithstanding this, experience the most ample and satisfactory, has proved conclusively, that except in particular states of the constitution, venesection, however repeated and copious, can have no direct effect upon the fœtus ; and further, that in very many cases it is the most effectual agent in averting abortion. Mauriceau relates the history of two pregnant women, who were delivered at the full period, although one of them had been bled forty-eight times, and the other ninety times, for an inflammation of the chest.†

Dr. Rush, in speaking of the effects of purging and *bleeding* in the yellow fever of 1793, asserts, that not one pregnant woman to whom he prescribed them, died, or suffered abortion.‡ In his defence of blood-letting, the same writer gives us the account of one woman whom he bled eleven times in seven days, during her pregnancy—of another, who was bled thirteen times, and of a third who was bled sixteen times while in the same condition. All these women, he adds, recovered, and the children they carried during their illness, were born alive and in good health.|| The foregoing facts, selected from a multitude of similar character, are abundantly sufficient to show the extent to which venesection may be carried during pregnancy, without being attended with any inju-

* *Mulier uterum ferens abortit secta vena, eoque magis, si sit fœtus grandior.* Hippocrates, sec. 5. aphor. 31.

† Capuron, p. 307.

‡ *Med. Obs. and Inqs.* vol. 3. p. 309.

|| *Med. Obs. and Inqs.* vol. 4. p. 302.

rious consequences to the fœtus ; and the effect must be the same, from whatever part of the body the blood may be drawn, whether from the arm or the foot. Still it is not to be denied, that when the constitution of the mother is naturally feeble and irritable, or has become much debilitated by disease, an injudicious loss of blood during pregnancy may prove fatal to the life of the fœtus. In all cases, therefore, of this kind, every attendant circumstance should be duly considered, for the purpose of ascertaining the intention of the person who recommended it.

Cathartics and emetics. The remarks just made concerning the effects of venesection, are equally applicable to cathartics and emetics. They may or may not produce abortion, according to the nature of the articles—the doses in which they are administered—the length of time they are continued, and the actual condition of the mother at the time of taking them. If the substances which are given be very powerful and drastic in their operation—if the doses be large, and these often repeated, and especially, if all this is done in a woman naturally weak and irritable, or enfeebled by disease, there can be no question that abortion may be accomplished. In such a case as this, however, the death of the mother is perhaps much more certain than the destruction of the child. With regard to the use of ordinary cathartic medicines during pregnancy, it is well ascertained that they may be carried to a great extent, without being followed by any injurious consequences either to the mother or the fœtus. During the yellow fever of 1793, Dr. Rush informs us, that he gave large and repeated purges of calomel and jalap to many women in every stage of pregnancy, and in no case did any injury ensue to the child. Nay, he adds, that out of a great number of pregnant women whom he attended in this fever, he “ did not lose one to whom he gave this medicine, nor did any of them suffer an abortion. One of them had twice miscarried in the course of the two or three last years of her life. She bore a healthy

child three months after her recovery from the yellow fever.”* From the well known fact, that many women are troubled with distressing nausea and vomiting during the whole of their pregnancy, and yet are safely delivered of living children at the regular period, we should not be led to conclude that much danger could ensue from the use of emetics. The fact, however, seems to be, that although the vomiting attendant upon pregnancy very seldom produces an abortion, yet the vomiting which is induced by emetics is occasionally attended with the most fatal consequences. In this opinion I am supported by the high authority of Mr. Burns, who says, that “it is worthy of remark, that abortion is very seldom occasioned by this cause, (the vomiting of pregnancy,) though emetics are apt to produce it.”†

Diuretics have also been considered as capable of producing abortion, and have frequently been used for this purpose. That they may have been occasionally attended with success is very possible; but I have no doubt that generally speaking they have failed. They certainly are destitute of any specific power of exciting uterine action. Mr. Burns seems to think that they are capable of bringing on abortion, and accordingly advises that they should be avoided during pregnancy.‡ Still, from his own language, I should not infer that he had ever witnessed this effect, although he says he has seen diuretics given very freely to pregnant women labouring under ascites.¶ On the other hand there are many positive facts on record to prove that diuretics may be taken with impunity by pregnant women. Zacchias relates the case of a female, who, after an interval of five years, considered herself pregnant, and shortly afterwards was attacked with sciatica. Several physicians and midwives were called to examine her, and decided unanimously, that she was not pregnant, particularly as she lost a little

* Med. Obs. and Inq. vol. 3, p. 249.

† Principles of Midwifery, 5th ed. p. 207.

‡ Ibid. p. 263.

¶ Ibid. p. 223.

blood every month, though not so much as in menstruation. They therefore prescribed for the disease which afflicted her, bled her repeatedly in the foot, administered purgatives frequently, together with diuretics and sudorifics. All this did not prevent her from bringing forth a healthy child at the end of the expected time.*

Concerning the *Oil of Juniper*, Foderè relates the following fact, which shows that this powerful article has failed in effecting an abortion. A pregnant female took every morning for twenty days, one hundred drops of the distilled oil of juniper, without injury, and was delivered of a living child at the expiration of the ordinary term.†

Even *Cantharides* has been taken in very large doses, with a view of procuring an abortion, without accomplishing the desired effect. "Some years ago," says Mr. James Lucas, one of the surgeons of the general infirmary at Leeds, "I was called to a patient, who had taken about a drachm of powdered cantharides, in order to induce abortion, and which brought on frequent vomiting, violent spurious pains, a tenesmus and immoderate diuresis, succeeded by an acute fever, which reduced her to extreme weakness, yet no signs of miscarriage appeared, and about five months afterwards she was delivered of a healthy child."‡

Emmenagogues. This is a class of medicines supposed to act specifically upon the uterus, in promoting the menstrual flux. From the uncertainty attending the operation of most of the articles usually arranged under this head, their number has been much diminished of late by systematic writers on the materia medica. Indeed, it may be questioned, whether the number of articles which exercise a specific influence on the uterus, exceed two or three. Of those generally classified under this head, I shall only notice *ergot*, *mercury*, and *savine*.

Secale cornutum, *ergot* or spurred rye. This ar-

* Foderè, vol. 4, p. 430.

† Ibid.

‡ Memoirs of the Med. Society of London, vol. 2, p. 408.

ticle, at present so fashionable in obstetric practice, was first announced to the profession in this country in the year 1807, by Dr. John Stearns of New-York, as a substance capable of accelerating in an extraordinary manner, the process of parturition. As might naturally be expected from the announcement of a remedy so novel and unique, it excited much interest, and as soon as subsequent experience had confirmed its virtues, rose at once into the most unlimited popularity. In the year 1812, it was suggested by the editors of the *New-England Journal of Medicine and Surgery*, that while fully convinced of the parturient powers of the ergot, they were apprehensive that an evil of great magnitude not unfrequently resulted from its use, and that was, the death of the child. They stated that they had been led to this apprehension from "observing that in a large proportion of cases, where the ergot was employed, the children did not respire for an unusual length of time after the birth, and in several cases the children were irrecoverably dead."* The observations of numbers of highly respectable physicians since that period, have tended but too strikingly to confirm this melancholy fact. At present, it will scarcely be denied by any one acquainted with the operation of ergot, that if given in very large doses, or at improper periods, it will but too certainly prove detrimental to the life of the child.† It is to be feared, that for this purpose it has been but too frequently used in this country. It cannot, therefore, be too strongly insisted upon, that

* Vol. 1, p. 70.

† For ample testimony on this point, I refer to the following authorities. *New-York Medical Repository*, vol. 12, p. 344. Vol. 20, p. 11. Vol. 21, p. 23, 139. *New-England Journal of Medicine and Surgery*, vol. 1, p. 70. Vol. 2, p. 353. Vol. 5, 161. Vol. 7, 216. Vol. 8, 121. *New-York Medical and Physical Journal*, vol. 1 p. 206, 278. Vol. 2, p. 30. It does not fall within my province to lay down the rules necessary to be observed by accoucheurs in the use of ergot. I cannot, however, refrain from referring to a valuable paper on this subject by Dr. Stearns, published in the *New-York Med. and Phys. Journal*, vol. 1, p. 278. It is calculated to be extensively useful, and it is to be hoped that the instructions there laid down, may have their just influence with the profession. For another interesting communication on ergot, from the pen of Dr. Hosack, the same journal may be consulted, vol. 1, p. 205.

the life of the mother is equally jeopardized with that of the child, by its improper use.

Mercury has long been considered an article capable of occasioning abortion. Crude quicksilver was at one time supposed to possess this property. It was accordingly used, not merely for this purpose, but also in all cases of difficult labour. It was not long, however, before it was ascertained that large quantities of it might be taken by pregnant women, with perfect impunity. Matthioli relates of several pregnant women, each of whom drank a pound of quicksilver to cause abortion, without any bad effect.* The same fact is confirmed by Fernelius.† *Calomel*, however, is the preparation of mercury most generally supposed to exert a specific influence upon the uterine organs. That it possesses the power of producing miscarriage, is countenanced by the authority of Mr. Burns, who directs that a full course of mercury should be avoided during pregnancy.‡ Facts, however, both numerous and conclusive, are on record to prove, that a pregnant woman may go through a long course of mercury, without the least injury either to herself or to the child. Bartholin and Mauriceau relate several cases, in which mercury was given to salivation, to pregnant women affected with syphilis, and who all, at their full time, were safely delivered of healthy children.¶ Mr. Benjamin Bell, than whom I could not quote higher authority, says, “it is a prevailing opinion, that mercury is apt to occasion abortion, and it is therefore seldom given during pregnancy. Much experience, however,” he adds, “has convinced me that this opinion is *not* well founded, and when managed with caution, that it may be given in sufficient quantities at every period of pregnancy, for curing every symptom of syphilis, and *without doing the least injury either to the mother or child.*”§ To the same effect is the testimony of Dr. Rush concerning

* James' Dispensatory.

† Vidi mulieres qui libras ejus hiberant ut abortum facerent, et sine noxa. Fernelius. Francis on Mercury, p. 13.

‡ Midwifery, p. 263.

¶ Foderè, vol. 4, p. 429.

§ Bell on the Venereal, Am. ed. vol. 2, p. 265.

the use of calomel in the yellow fever of 1793. In not a single instance did it prove injurious to pregnant women.* A case which fell under my own care, in November, 1821, confirmed me in the opinion already advanced. A female, eight months gone with child, was attacked with a violent inflammation of the lungs. After the use of the ordinary depleting remedies, I found it adviseable to have recourse to mercury. She was accordingly put upon the use of small doses of calomel and James' powder. In a few days, salivation came on; after which, all the symptoms of her pulmonary complaint speedily vanished, and the patient was restored to her usual health. She was afterwards delivered of a living child at the full period.

Juniperus sabina—savine. If given in sufficiently large doses, this is a powerful poison. In the experiments made by Orfila on this article, it was found in one instance to destroy a dog sixteen hours, and in another thirteen hours after it was administered.† In the case of Miss Burns, for whose murder Mr. Angus was tried at Lancaster in 1808, there is reason to believe, from the testimony offered, that savine oil had been administered to effect an abortion. That it does not always succeed, is evident from a case related by Foderè. In 1790, a poor, imbecile, and cachectic girl, in the duchy of Aoust, in the seventh month of her pregnancy, took from the hands of her seducer a glass of wine, in which there was mixed a large dose of powdered savine. She became so ill, that a report of it was made to the magistrate, who ordered Foderè to visit her. The patient stated to him, that on taking the drug, she had felt a burning heat, accompanied with hiccup and vomiting. This was followed by a violent fever, which continued for fifteen days. By the proper use of refrigerants, however, she recovered, and at the end of two months, was safely delivered of a healthy child.‡

* Med. Obs. and Inq. vol. 3, p. 249, 309.

† Orfila, vol. 2, p. 26, 7.

‡ Foderè, vol. 4, p. 431

Among the *local means* used for procuring abortion, I shall notice only two, viz. blows on the abdominal and lumbar region ; and the introduction of an instrument into the womb, which by rupturing the membranes, induces premature action of the uterus, and thus destroys the child.

Blows on the abdomen and loins. In cases where severe blows have been received on the back, the danger of abortion is always imminent. It is, indeed, rare that a female goes to her full time when she has received such an injury. Blows on the abdomen are equally dangerous ; and in most cases of this kind, a considerable hæmorrhage precedes the death of the fœtus. In disputed cases, where it is denied that the injury inflicted has caused the abortion, we should attend to the two following circumstances : First, whether the violence offered was sufficiently great to be considered as the sole cause ; and second, whether the female was not predisposed to abortion, and had failed in some precautions, or committed some imprudence, which might have induced it. After investigating into these facts, we ought to enquire whether the accused knew of the pregnancy of the female, or whether she had not provoked the blows which she received. Two cases from Belloc may serve to illustrate these distinctions. A young woman, between the third and fourth months of her pregnancy, had received, from a robust man, several kicks, and blows with the fist, the marks of which were very evident. Immediately after the accident, she was put to bed, bled, and various remedies given her by a surgeon. The hæmorrhage, however, continued, with pains in the loins and abdomen, and on the next day she had an abortion. Belloc, on being examined, declared that the accident was owing to the violence which had been inflicted.* In another case, a female brought forth a dead fœtus, four months advanced, two days after a quarrel with her husband, in which she said he had struck her. Instead, however, of lying down,

* Belloc, p. 81.

or at least keeping quiet, she walked a league that day, and on the next a quarter of a league, to a place where she was to aid in bringing in the harvest, nor was it until her arrival there, that she was forced to go to bed. In this case Belloc decides, that it is very possible, had she remained quiet, and called for proper aid, that the abortion would not have taken place, particularly as the violence used was only that of throwing her down in the street.*

With regard to this cause of abortion, as well as the others that have been mentioned, it is to be understood that the life of the *mother* is equally exposed with that of the child. The following case, related by Dr. Smith, illustrates this fact in a striking manner, and is only one of a number which might be adduced. In 1811, a man was executed at Stafford for the murder of his wife. She was in the pregnant state, and he had attempted to induce abortion in the most violent manner, as by elbowing her in bed, rolling over her, &c. in which he succeeded—not only procuring abortion, but along with it, the death of the unfortunate woman.†

Of the mechanical means used to destroy the child. Of this villainous practice, which has long been known and resorted to for the nefarious purpose of abortion, I shall say nothing more than to give the history of a case in which it was used, and in which it proved fatal to the lives of both *mother* and *child*. “At Durham assizes, in 1781, Margaret Tinckler was indicted for the murder of Janet Parkinson, by inserting pieces of wood into her womb. The deceased took her bed on the second of July, and from that period thought she must die, making use of various expressions to that effect. She died on the 23d. During her illness, she declared that she was with child by a married man; and he, being fearful, should she be brought to bed, that the knowledge of the circumstance would reach his wife, advised her to go to the prisoner, who was a midwife, to take her advice how

* Belloc, p. 82.

† Smith, p. 305.

to get rid of the child—being at the time five or six months gone. The delivery took place on the 10th of July; three days previous to which, a person saw the deceased in the prisoner's bed-chamber, when the prisoner took her round the waist, and shook her in a violent manner five or six different times, and tossed her up and down. She was afterwards delivered at the prisoner's house. The child was born alive, but died instantly, and it was proved by surgeons to be perfect. There was no doubt but that the deceased had died by the acceleration of the birth of the child; and upon opening the womb of the mother, it appeared that there were two holes caused by wooden skewers, one of which was mortified, and the other inflamed. Additional symptoms of injury were also discovered."*

Having finished the notice which I proposed to take of the methods which have been resorted to for criminally producing abortion, I must again insist upon a circumstance, already adverted to, but which cannot be too often repeated, and this is, the danger which necessarily attends the life of the mother in every attempt of this sort. Even in cases where miscarriage results from involuntary causes, and where every prudential measure has been adopted for obviating its consequences, it is well known that the mother frequently falls a victim. How much more likely is this to be the result when the miscarriage is occasioned by great and unnatural violence done to the system, and that too under circumstances which generally shut out the wretched sufferer from the benefit of all medical succour. There is another circumstance also of great importance which should not be forgotten. It has happened in some instances, that while the mother has lost her life in attempting to procure a miscarriage, the child has actually been born alive and survived. A case of this kind was witnessed by Foderè in 1791. A cook finding herself pregnant, and not being longer

East's Crown Law, vol. 1, p. 354. Smith, p. 306.

able to conceal it, obtained half an ounce of powdered cantharides and mixed it with an ounce of sulphate of magnesia, and took them down in order to produce abortion. Some hours after, she was seized with violent colic, and brought forth a *living child*, in the most horrible pains. During the succeeding night she died.* If these facts were more generally known, I suspect the attempts at abortion would be much less frequent than they are at present. With regard to the accessories and accomplices in this crime, it would be well for them to remember, that in every experiment of this kind which they make, they take upon themselves the awful responsibility of jeopardizing not merely a single life, but two lives. As far as *intention* is concerned, they are in all cases as much chargeable with the death of the mother, as with the destruction of the fruit of the womb.

It results therefore, from what has been said, concerning the means of producing abortion,

1. That all of them are *uncertain* in their operation upon the fœtus.
2. That they always endanger the life of the mother, and
3. That they sometimes destroy the mother without affecting the fœtus.†

* Foderè, vol. 4, p. 436.

† I deem it so important to enforce these results, that I shall confirm them by the following authorities. "It is evident, I believe from experience, that such things (abortives) cannot act as efficient causes, without the aid of those predisposing causes, or natural habits of the body, which are necessary to concur with them. As attempts of this kind, however, should not be passed off with impunity, and *as the life of the mother as well as the child*, is endangered by such exhibitions, if advised by any other, they should be considered as highly culpable, and for this reason should be made known." Farr's Elements of Medical Jurisprudence, p. 70.

"Every woman who attempts to promote abortion, *does it at the hazard of her life*. It may be remarked, whoever endeavours to counteract the ordinary proceeding of nature, will have in the end sufficient cause to repent the temerity." Bartley's Treatise on Forensic Medicine, p. 5.

"There is no drug which will produce miscarriage in women not predisposed to it, *without acting violently on their system, and probably endangering their lives*." Male's Epitome of Juridical Medicine, in Cooper's Tracts, p. 208.

"Abortion is in general injurious to health, and is seldom unaccompanied with suffering. The administration of emmenagogues to force a sepa-

Of the involuntary causes of abortion. Of these, it is not necessary to say much. They should always, however, be kept in view in medico-legal investigations on this subject, so that we may not attribute to criminal interference what is owing to some morbid derangement. Diseases of various kinds, as rheumatism, pleurisy, small-pox, typhus and yellow fevers, scarlatina, syphilis, and measles, operating on a system predisposed by nervous irritability—a diseased state of the uterus—the intemperate use of spirituous liquors—irritation of the neighbouring organs, from costiveness, tenesmus of dysentery, hæmorrhoids, prolapsus ani, diarrhœa, incontinence of urine—errors in regimen and diet—violent exercise, as in walking, dancing, riding, running, &c.—accidental falls—a sudden contortion or shock* of the body—indulgence of any violent passion of the mind, whether joyful or sad—the relation of any unexpected intelligence—a great noise†—the appearance of any extraordinary object—previous abortion—fluor albus—excessive venery—accidental blows on the abdomen—the death of the fœtus—the attachment of the placenta over the os uteri—retroversion of the womb—hæmorrhage, from whatever source, or at any pe-

ration of the ovum, where the constitution has no tendency to throw it off, is highly dangerous to the mother. No drugs can act in this way upon the uterus, but by involving it in a violent shock given to the general system. It has frequently occurred, that the unhappy mother has herself been the sacrifice, while the object intended has not been accomplished." Smith's Principles of Forensic Medicine, p. 295.

* The pulling of a tooth, for instance, has been known to produce abortion. Burns on Abortion, p. 64.

† A case, in which a great noise as a cause of miscarriage was involved, was tried in 1809, at the quarter sessions of Franklin county, in Pennsylvania. The indictment charged that Taylor, (the defendant) unlawfully, secretly, and maliciously, with force and arms, broke and entered at night the dwelling house of James Strain, with intent to disturb the peace of the commonwealth; and after entering the house, unlawfully, wilfully and turbulently made a great noise, in disturbance of the peace of the commonwealth, and did greatly misbehave in said dwelling house, and did greatly frighten and alarm the wife of the said Strain, whereby she miscarried, &c. The offence was held indictable as a *misdemeanor*. The jury found the defendant guilty; but the quarter sessions arrested the judgment, upon the ground, that the offence charged was not indictable. The supreme court decided in this case, that the judgment should be reversed, and the quarter sessions were directed to proceed to give judgment against the defendant. Binney's Reports, vol. 5, p. 277.

riod*—all or any of these causes may give rise to abortion, without the imputation of the least criminality to the female.

The influence of the passions upon the uterine functions is peculiarly striking. It is an extraordinary fact, that the melancholy and sadness caused by some great evil which is known and expected, are much less injurious to a pregnant woman, than the annunciation of some important good, or even a trifling misfortune which is unexpected. Foderè relates the case of some pregnant women, who, during the horrors of the French revolution, were confined in dungeons, and condemned to death ; their execution was, however, delayed in consequence of the peculiarity of their situation. Yet notwithstanding the actual wretchedness of their condition, and the more terrible anticipation of future suffering, they went on to the full time, during which period, a fortunate change in the state of parties rescued them from unmerited punishment.†

Examination of the fœtus. In examining the expelled contents of the womb, we should have the following objects in view :

1. To ascertain whether it be really a fœtus. This is important, inasmuch as the presence of moles and hydatids in the uterus may occasion many of the symptoms of pregnancy. The necessary distinctions on this head, have been explained in a previous chapter.‡

2. To ascertain the age of the fœtus. For ample directions on this point, consult from page 162 to page 172 of this volume. Having discovered as nearly as possible the age of the fœtus, it should be compared with the symptoms detected on the examination of the mother, to see how they correspond.

3. To ascertain, if possible, what has been the cause of the miscarriage. If the abortion has been occasioned by the use of drugs, &c. taken by the mo-

* Burton's Midwifery, p. 281. Burns' Midwifery, p. 161. Burns on Abortion. Hamilton's Midwifery.

† Foderè, vol. 4, p. 422.

‡ See page 121 of this volume

ther, nothing can be learned as to the cause of it, whether it be voluntary or involuntary, from any examination of the fœtus. In all cases its appearance will be very much the same, whatever may have occasioned its expulsion from the womb. As, however, it may have been produced by mechanical violence done to the fœtus itself, by the introduction of instruments, &c. it becomes necessary to examine it very carefully, and more especially its head, to discover the nature and extent of the wounds (if any) which may have been inflicted.

In concluding the subject of abortion, I shall make a remark or two upon the *circumstantial evidence* which may be adduced to prove the guilt of the accused. With regard to her concealing her pregnancy, I cannot conceive with what justice any inference can be drawn prejudicial to her character. If her pregnancy be the result of illicit commerce, it is perfectly natural that she should make use of every effort to conceal her disgrace as long as possible. The mere fact of concealment, even if proved, ought to be considered as no evidence whatever of her guilt.

If she has been known to apply frequently to the same or to different physicians to be bled, especially in the foot ;—if she has endeavoured to procure any of the medicines usually given to produce this effect ;—if any are found in her possession, or if she can be convicted of actually taken them, without medical advice, we have then the strongest circumstantial evidence which the nature of the case admits of, to pronounce her *intention* to have been criminal. These are circumstances, however, which do not strictly come under the cognizance of the professional witness ; they are matters of fact, which must be decided upon from the testimony which may be offered by the other witnesses cited to appear in the case.

3. *Of the murder of the child after it is born, with an account of its various proofs and causes.*

In every case in which an infant is found dead, and

becomes the subject of judicial investigation, the great questions which present themselves for inquiry are, 1. Was the child born alive? 2. If born alive, by what means did it come to its death?

Having come to the conclusion that the death of the child is owing to violence, it is next to be ascertained who the perpetrator of it is. Should suspicion light upon a female as being the mother of it, the questions to be determined concerning her are, 1. Whether she has been really pregnant? 2. Whether she has been delivered of a child, and 3. Whether the pregnancy and delivery correspond as to time, &c. with the appearances observed on the child? These are the only points upon which the *professional witness* can be called to give his testimony, and to the consideration of these I shall accordingly confine myself.

Proofs of the child having been born alive. We know nothing of the *nature of life*: we judge of it only from its effects, and declare that being as enjoying it, who performs the functions considered essential to it. These functions are called *vital*, and are usually enumerated as the three following, viz. the *cerebral* and *nervous*; the *sanguineous*, and the *respiratory*. This distribution can only apply, however, to the state after birth: in the foetal state, facts would seem to prove, that nothing besides the *circulation* of the blood is necessary to the maintenance of the vital principle. Even the energy of the brain, which is afterwards to determine the character, and in a great measure to fix the destiny of the being it inhabits, is originally dormant, and the organ itself occasionally wanting. In cases of infanticide, it is only from the *circulation*, and *respiration*, that any thing is to be learned: the *brain* and *nerves* leave no trace of their influence behind them.

Proofs of the blood having circulated after birth. There are several circumstances from which a conclusion on this point may be drawn.

(a) *Appearance of the blood.* The difference between the blood of the foetus, and the child after birth,

has been particularly noticed by Bichat. He made numerous dissections of young guinea pigs while yet in the womb of their mother, and he uniformly found the blood of the arteries and veins presenting the same appearance, resembling the venous blood of the adult. Not the slightest difference was observed between the blood taken from the aorta, and that from the vena cava—nor between that drawn from the carotid artery and the jugular vein. He made the same observations in three experiments of a similar nature upon the fœtus's of dogs. He also frequently dissected human fœtuses who died in the womb, and found the same uniformity in the arterial and venous blood. From these facts, he concludes, that no difference exists between the arterial and venous blood of the fœtus, at least in external appearance.*

The chemical constitution of the blood of the fœtus appears also to differ from that of the child after birth, or the adult. Fourcroy, in analyzing it, found it destitute of fibrous matter, as well as of the phosphoric salts which are always detected in the blood of the adult. He also discovered, that it was incapable of becoming florid by exposure to the influence of atmospheric air.

These facts prove decidedly, that there is a difference between the blood of a child that dies in the womb, and one which is born alive and has respired; and this circumstance may be used as a criterion, by which to determine whether it was possessed of life after birth. I know not that this test has ever been introduced into medico-legal investigations, in cases of infanticide. Perhaps it is one too delicate to be altogether trusted, especially, as we have others more plain and obvious, and which may be more easily employed.

(b) *The presence of blood in the pulmonary blood-vessels.* It is well known, that before respiration takes place, scarcely any part of the blood of the

* Bichat's General Anatomy, translated by G. Hayward, M. D. vol. 1, p. 358.

fœtus passes through the lungs. The blood-vessels of these organs are therefore empty and collapsed. Immediately after respiration is established, the whole of the vital fluid circulates through the lungs, for the purposes of oxygenation. If, therefore, the pulmonary blood-vessels be found distended with blood, it is a proof, not merely that the blood has circulated after birth, but also that respiration has been actually performed.

(c) *The changes which take place in the vascular system, immediately after respiration begins.* These changes are highly important and interesting, and deserve particular attention. It is not necessary in this place to enter into an elaborate description of the fœtal circulation. I shall only notice its prominent peculiarities. 1. The *ductus venosus* is a vessel running from the umbilical vein to the inferior vena cava, through which a portion of the blood passing through the umbilical vein, goes directly to the cava, and thence to the heart. In the fœtus, this duct will be found pervious, and containing blood. In the child which has respired, on the contrary, it will be found collapsed, and empty of blood. The whole vessel, shortly after birth, becomes impervious, and is converted into a ligament. 2. The *ductus arteriosus* is a vessel which communicates between the pulmonary artery and the aorta, and conveys a portion of the blood from the former directly to the latter. In the fœtus, this passage will be found in a state similar to that of the ductus venosus—pervious, and with blood in it. In the child after birth, its passage becomes obliterated, and the duct itself changed into ligament. 3. *Foramen ovale.* This is an opening which, in the fœtus, constitutes a communication between the two auricles of the heart, and through it part of the blood is conveyed directly from the right to the left auricle. After birth this foramen is obliterated. Upon this latter peculiarity, however, too much reliance should not be placed, as not unfrequently a considerable period elapses before the foramen is completely closed.

(d) *Ecchymoses* or *extravasations* of blood on the body of the child, produced by blows or other injuries, prove that it enjoyed vitality at the time they were inflicted; for in a dead child, as the blood has ceased to circulate, it could not flow to the injured part, and therefore there would be no appearance of extravasation. Professor Mahon mentions another possible cause of such extravasations, which should not be overlooked. He says they may result from putrefaction, which, by means of the air that is generated, bursts the veins, and then blood from very distant parts of the body is insensibly carried along to this outlet, so as to form a considerable extravasation.* It could not certainly be very difficult to discriminate in a case of this kind, yet it teaches us a practical caution of some consequence, which is, to pay particular attention to those circumstances which tend to favour the process of putrefaction, as the climate, season of the year, and place where the body is found.

Proofs of the child having respired after birth. The act of respiration constitutes the great distinguishing feature between adult and fœtal life. Its commencement is succeeded by revolutions in the animal economy, the most wonderful and interesting. The pulmonary system is, however, principally affected by it, and it is there that the medico-legal inquirer must search for those changes, which are indicative of the exercise of that function.

In examining a child which has never breathed, its *thorax* is found flattened, or as it were, compressed—the lungs are dense, of a reddish-brown colour, and in a collapsed state—they are comparatively small in size, occupying only the upper part of the chest, and hence they leave the heart and pericardium uncovered: on examining the pulmonary vessels, they are found to contain little or no blood. This will be evident on cutting into them. No hæmorrhage will follow the incision. If the lungs be taken out of the

* Mahon. vol. 2, p. 389.

thorax and put into water, they will sink to the bottom, and if their weight be compared with the weight of the whole body of the child, they will be found to be to each other as 1 is to 67 or 70.

The reverse of all this is met with in a child that has respired. The thorax is more arched, and its size augmented in every respect ; the lungs are dilated ; they fill up the cavity of the thorax, and cover the lateral parts of the pericardium ; their colour is less deep, and the pulmonary vessels are moreover distended with blood. An incision into them will be attended with a flow of blood. Their specific, as well as absolute weight, is also changed ; and accordingly, when put into water, they will float upon its surface, and when compared with the whole weight of the body, they will be as 2 is to 67 or 70 : or in other words, the *absolute* weight of the lungs in a child which has breathed, will double that of the *fœtus* previous to respiration. In addition to this, they have an elastic feeling, and on cutting into them, there is a crepitus caused by the extrication of the air from the pulmonary cells.

Besides the effects thus produced upon the *lungs* themselves by the admission of air into them, there are other changes effected in the neighbouring organs. The shape of the diaphragm is altered by the expansion of the lungs, pressing it down and diminishing its arch. And from the same cause, the relative position of the liver and stomach will be changed.

Such, in general terms, are the changes in the pulmonary system caused by respiration, and where they exist, are sufficiently palpable to remove every doubt as to the child having enjoyed life. Some of them, however, require a more minute examination.

(a) *Of the floating of the lungs in water.* It is to Galen that we are indebted for the first notice of the changes effected in the lungs by respiration. “Ob eam causam,” says he, “substantia carnis pulmonis ex rubra, gravi, densa, in albam, levem, ac raram transfer-

tur.”* The knowledge of this fact was not however applied to the purposes of forensic medicine until after the lapse of several centuries. It seems to have first attracted attention a little before the time of Morgagni, who says “I do not know, whether any one ever thought of making the experiment on this account, except a few lustra before my age.”† Even Zacchias and Paræ, who may be styled the fathers of forensic medicine, pass over it in silence. Haller speaks of it particularly, and notices some of the difficulties attending its practical application : “Vixit certe puer, cujus pulmo aquis innatat, neque vitium subrepere potest, nisi vel in os inflatus ær fuerit, quod verum respirationis genus est, vel putredo, neque ea modica, tantum produxerit æris, ut pondus specificum pulmonis, aliunde equidem ære exigua portione majus, aquæ pondere minus factum sit. Id modica putredo non efficit, major præstat. Neque tunc error in medici effato locum habet, si levi opera voluerit explorare, num et reliqua viscera natent. Id si viderit, non os in pulmonem per respirationem receptus causa erit natandi, sed ær ex humoribus carnibusque per communem legem putredinis expeditus.”‡

In the whole range of forensic medicine, there is not a question more important, and at the same time more difficult, than the one which relates to the *floating of the lungs as a proof of the child's having been born alive*. It has divided the opinions of medical jurists from the earliest periods, and even at the present day it still remains a subject of controversy. When it is recollected, how great and just an importance has been attached to it in trials for child-murder, and how embarrassing to courts and to juries have been the contradictory sentiments advanced concerning it by medical witnesses, the propriety of a lengthened investigation of the subject cannot be questioned.||

* Opera Galeni de usu Part. lib. xv. cap. 6, p. 145, 6.

† Morgagni's Works, vol. 1, Lett. 19, p. 536.

‡ Haller, vol. 3, p. 279, 80.

|| With the exception of their late writers, the English were very general-

For the purpose of rendering the subject as distinct as possible, I shall first state the test, and then consider the different objections which have been brought against its accuracy.

If the lungs of a child which has never breathed, be put into water, it is found that they are specifically heavier than the water, and of course sink. On the contrary, if respiration has once taken place, the lungs being specifically lighter than water, will then float. From these facts the general conclusion necessarily follows, that when the lungs of a child float in water, it must have respired, and therefore must have been born alive. And on the other hand, when they are found to sink, it is an evidence that the child has not breathed, and therefore was not born alive.

By the French this is denominated the *Hydrostatic test* of the lungs, a name both convenient and appropriate, and I shall therefore adopt it in the following discussion.

Let us now see whether it is safe to trust to the evidence furnished by this test, by considering the different objections which have been urged against it.

Examination of objections. I. It has been objected, that a child may have been born dead, and yet the lungs will float in water, from having undergone putrefaction, and therefore, it is argued, that the mere floating of the lungs is no decisive proof of previous life.

With the view of giving this objection its full force, it may be proper first to consider the effects of putrefaction.

Strange as it may appear, it has nevertheless been a subject much debated, what the effects of putrefaction are upon lungs that have never respired; some asserting, that it renders them specifically heavier

ly opposed to it. Indeed, so strongly had this opposition been expressed by writers and practitioners, that all evidence drawn from this source, if not immediately rejected in their courts of justice, was at least looked upon with the greatest suspicion. The French and Germans have made it the subject of more profound inquiry. Many of their first writers advocate its accuracy; and in their trials for infanticide, much weight is attached to it.

than water, and consequently, that they will sink when thrown into that fluid ; while others, of equal respectability, maintain a contrary opinion. Both parties adduce experiments in proof of their particular doctrines. The only solution that can be given to these contradictory results, is to admit that all the experiments have not been performed with sufficient care, so as to lead to conclusions uniformly just. Every thing depends upon the *manner* in which they are conducted. The most accurate, I believe, were those performed by Mayer, and as they place this subject in a very just point of view, and relieve it of much of the obscurity in which it has been involved, it may not be improper to present a summary of his observations. From a very extended series of experiments, continued during a number of years, and executed with the utmost care and precision, Mayer found, on putting into water the lungs of still-born children, in whom, of course no sign of respiration or life had appeared, that they sunk to the bottom. After an interval of two or three days, the water in which they were left became turbid—the lungs changed in colour, and increased in volume—here and there an air bubble arose to the surface of the water, and at the same time a putrid odour became perceptible. All these appearances continued to increase daily, until the sixth, seventh, or, at the latest, the eighth day, when the lungs, both entire and cut into pieces, floated in the water in which they became putrid. On transferring the lungs to vessels containing clean water, they still continued to float, although on the slightest compression they instantly sunk.

Lungs placed in water, and exposed to the rays of the sun, swam on the sixth day. If they were suffered to putrefy where there was a free current of air, they rarely floated before the tenth or eleventh day. After the lungs had once floated, they remained in that state, emitting daily a more offensive odour, and acquiring an increased volume, until the twenty-first, or at the latest, the thirty-fifth day. After that period,

they gradually sunk down, without a single exception, to the bottom of the vessel, nor did they afterwards betray any disposition to float, although kept for seven weeks, and in some instances a much greater length of time.*

The foregoing experiments were made in the month of August. The lungs, both entire and cut into sections, were immersed in pure fountain water, and contained in vessels convenient and capacious. In short, every precaution seems to have been scrupulously observed, to render the experiments accurate and satisfactory.

My own experiments on this subject, although not numerous, go to confirm, in every essential point, those which have been just detailed. I shall content myself with recording the history of a single one.

Twenty-four hours after delivery, I was favored by a medical friend with the thoracic viscera of an infant, which had been still-born, after a very difficult and protracted labour. On putting them into a vessel of water, the heart, lungs, thymus gland, &c. were found to sink readily to the bottom, both conjointly and when separated. No symptom of putrefaction was discernible.

August 20, 9 o'clock A. M. This being the third day after delivery, I separated the two lobes of the lungs, and placed them in a vessel of pure rain water, exposed to the rays of an intense sun : both lobes being at the bottom of the water.

2 P. M. Both lobes floating. Here and there an air bubble visible on their surface. Odour very offensive.

7 P. M. Left lobe sunk : right still floating.

August 21, 9 A. M. Both lobes sunk.

2 P. M. Both floating.

7 P. M. Both floating.

August 22. Both floating all day.

August 23, 9 A. M. Both floating ; covered with bubbles of air. On taking out one of the lobes, with

* Mayer in Schlegel, vol. 1, p. 262, 3, 4.

a view of cutting off a portion of it, I found it so far dissolved as to render it impracticable. On returning it into the water, it immediately sunk.

2 P. M. The lung which sunk this morning again floating. Both now float, and are horribly offensive.

August 24, 9 A. M. The lung which was taken out and cut yesterday, sunk again: the other still floating.

August 30. No change has taken place in the situation of the lungs since the 24th. Finding the water nearly evaporated, I filled the vessel very cautiously with fresh rain water, upon which the floating lung instantly sunk.

August 31. Both lungs still sunk, and never afterwards showed any disposition to float, although suffered to stand for better than five weeks.

If it should be objected to these experiments, that they are not satisfactory, because the lungs were separated from the rest of the body, it will obviate every difficulty to state a case in which the same result was observed in lungs which had not been taken out of the chest, until after they had become putrid. A case of this kind is related in which the child was certainly born dead. It had already become putrid when it was dissected—its vessels were full of air—and vesicles distended with it were seen on the surface of the lungs. On putting the lungs into water, they floated.*

From the foregoing experiments it thus appears, that in the *incipient* stage of putrefaction, lungs that have never respired will float in water; whereas they will sink if it has continued long enough to completely destroy their organization, and thus extricate all the air contained in them. These results have been corroborated by numerous other observations and experiments, and their truth cannot be doubted. It seems singular, indeed, that they should ever have been questioned, when a case perfectly analogous is witnessed in every person that is drowned. The body

* Edinburgh Med. Essays, vol. 6, p. 450.

at first sinks ; afterwards rises to the surface, when putrefaction has generated air sufficient to render it specifically lighter than water ; and finally descends again, upon the extrication of that air.

Such being the effect of putrefaction, it becomes a question of great importance, to determine in what way we may discriminate between the floating of the lungs, as caused by natural respiration, and that which is the result of decomposition.

Independently of the changes produced in the colour and general appearance of the lungs by putrefaction, there are other very characteristic marks by which they may be distinguished.

1. By the appearance of air bubbles on the surface of the lungs.

On this subject, Dr. William Hunter lays down the following rule : “ If the air which is in the lungs be that of respiration, the air bubbles will hardly be visible to the naked eye ; but if the air bubbles be large, or if they run in lines along the fissures between the component *lobuli* of the lungs, the air is certainly emphysematous, and not air which had been taken in by breathing.”* Jaeger had before this made a similar observation. In lungs floating from putrefaction, he describes the air as contained in the form of bubbles under the external membrane of those organs, where the air introduced by respiration never finds its way.† This rule appears to be founded in truth, and accordingly has been adopted by the best writers on forensic medicine.

2. By the ease with which the air can be extricated from lungs which float in consequence of putrefaction. The evidence of this is to be found in the fact, that if lungs of this description, or any portions of them, be squeezed in the hand, they will immediately sink in water. On the contrary, no compression, however

* On the uncertainty of the signs of murder, in the case of bastard children. By William Hunter, M. D. F.R.S. Medical Observations and Inquiries of London, vol. 6, p. 284.

† Schlegel, vol. 5, p. 111.

strong, can force out so completely the air from lungs that have respired, as to cause them to sink. This test is insisted upon by Marc, a very distinguished writer on this subject, as the most certain means of discriminating between the effects of putrefaction and respiration.*

3. By cutting out a portion of the internal part of the lungs, and putting this in water, to ascertain whether it will float. If the lungs floated as the result of putrefaction, this internal portion will sink, inasmuch as the air generated by decomposition is confined to the surface of the lungs. If, on the contrary, the lungs have respired, the internal part will float more readily even than that towards the surface.

4. By an examination of the other viscera of the body. Numerous observations have established the fact, that with the exception of the bones, the lungs resist putrefaction longer than any other part of the body. Faissolle and Champeau, in experiments which they made upon drowned animals, observed that the lungs remained sound, after the whole of the body had become putrefied.† Mahon noticed the same fact in his dissections of dead bodies.‡ Camper ascertained, by direct experiments, that the head became so far decomposed by putrefaction, that the slightest force was sufficient to detach the bones of it from each other, as well as those of the arms and legs, before the lungs began to participate in the putrefaction.¶ I myself observed the same phenomenon in three instances. This was especially the case in a child found floating in the river. The body had become quite putrid—the scalp was distended with air, and so were the bowels. The lungs, on the contrary, were perfectly natural in their appearance, and untouched by putrefaction. From these facts the conclusion evidently follows, that if the rest of the body of the child which is the subject of examination, be

* Dictionaire des Sciences Medicales, vol. 10, art. Docimasie Pulmonaire.

† Mahon, vol. 2, p. 400.

‡ Ibid. vol. 2, p. 400.

¶ Dissertation on Infanticide, by W. Hutchinson, M. D. p. 47.

unaffected by putrefaction, it may very confidently be inferred, that the floating of the lungs is not owing to putrefaction.

By a careful application of the foregoing tests, little or no difficulty can arise in deciding whether the lungs float from putrefaction or from respiration.

But suppose the lungs are found to be actually in a state of putrefaction, is the physician then justified in drawing any conclusions, or in giving any opinion? Mahon advises in such cases, that it is better for the medical witness to be silent, and to leave to the magistrates the task of finding out other grounds of accusation.* Marc, however, answers this question in the affirmative, and proposes two characteristics to enable him to offer a positive decision. The first is, that lungs which have respired, notwithstanding they may have been attacked by putrefaction, always have a crepitus when cut into; whereas those which have never respired, although they float in water, are destitute of this peculiarity. The second, and which he considers the most decisive and certain, is this: that upon squeezing out from sections of the lungs the matter developed by putrefaction, they will *sink* if they are from a child born dead; but, on the contrary, if they are from a child born alive, they will, notwithstanding this, continue to *float*.†

II. It is objected that a child may have been born dead, and yet its lungs may float in water, in consequence of their having been artificially inflated, and therefore, it is argued, that the mere floating of the lungs is no proof of previous life.

It has been doubted by some whether artificial inflation of the lungs could ever be effected. Heister states, that he proved by actual experiments, that air cannot be blown into the lungs so as to cause them to float.‡ Hebenstreit also doubts whether it can be accomplished, in consequence of the mucus which is

* Med. Legal. vol. 2, p. 400.

† Manuel D'Autopsie Cadaverique, p. 134.

‡ Morgagni's Works, vol. 1, p. 536.

usually found to fill the fauces of a new-born child.* Roederer, from the failure of his experiments on this subject, was led to the conclusion, that it can only be effected after the child has previously breathed. “*A spiritu ori,*” says he, “*inflato pulmones infantis non inflari dilatarique ; nisi fœtus aliunde respiraverit.*”† Brendel is still more positive on this point. He believes artificial inflation to be utterly impossible, and assigns two reasons for his scepticism. The first is, the resistance which is made by the thorax and diaphragm, and the second is, the difficulty of introducing a pipe into the glottis, without which he thinks it is impossible to inflate the lungs. He adds, moreover, in confirmation of his opinion, that he made experiments upon pups that were killed while yet in the uterus, and although he attempted to force in the air by a bellows, yet no change was effected upon the lungs, and they sunk when put into water.‡

A contrary doctrine is however maintained by a very large majority of the most respectable authorities in forensic medicine. Low admits the possibility of it, and tells us that Bohn, together with the medical faculty of Leipsic, concurred in the same opinion.¶ Ludwig says, it is certain that air may be artificially blown into lungs which have never respired, and that they will afterwards float in water.§ In several experiments made to test this matter by the celebrated Camper, the result was uniformly in favour of this opinion.¶ Jaeger, Buttner, and Schmitt, concur in the same, as do most of the French and English writers.

From the foregoing detail of authorities, it is quite evident, that although artificial inflation of the lungs of a child born dead, is a thing perfectly practicable, yet it is not accomplished with as much facility as many have imagined. This consideration I conceive

* Hebenstreit, p. 405.

† Schlegel, vol. 5, p. 112

‡ Brendelius, p. 136.

¶ Low, cap. 12, p. 623.

§ Ludwig, p. 97.

¶ Schlegel, vol. 5, p. 112

to be important, because it tends to weaken very much the force of this objection to the hydrostatic test. Still, however, the objection holds good, and there are not wanting occasions when artificial inflation might be attempted. It is not incredible that it might be the result of malice, designed to injure the innocent mother; or of maternal tenderness endeavoring to resuscitate a lifeless child. It becomes, then, a matter of great moment, to determine whether the existence of air in the lungs be the product of nature or of art; and it is fortunate for the cause of justice, as well as humanity, that this can be done.

The first test which I shall notice for this purpose, was originally proposed, I believe, by Buttner, and is founded upon the difference of the foetal and adult circulation of the blood. In the former, it is well known that the blood does not pass through the lungs; whereas, as soon as respiration commences, the old passages are closed, and the whole mass is forced through those organs. If, therefore, a child has been born dead, the arteries and veins of the lungs are found destitute of blood, and in a collapsed state, notwithstanding any artificial inflation that may have been practised upon them. On the contrary, the vascular distention of the pulmonary organs, proves that the child has breathed; for nothing but natural respiration can produce this effect.

A second method of determining this question is, by taking the weight of the lungs, and comparing it with the weight of the whole body, according to the celebrated test of M. Ploucquet. As this is a test of great value, it will be necessary briefly to explain the principle upon which it is founded.

From the peculiarity of the vascular system in the foetus, only a very small portion of the blood goes the round of the pulmonary circulation. As soon as respiration commences, a change is effected, and the whole mass of the blood passes through the lungs, in order to undergo the necessary process of oxygenation. From this it appears obvious, that the foetal lungs

must be considerably inferior in weight to the same organs after respiration has been established. It is upon this fact that M. Ploucquet founded his test for determining, whether a child had been born dead or alive, by comparing the weight of the lungs with the weight of the whole body. From the experiments which he made to ascertain their proportional gravity, he drew the general conclusion, that the weight of the lungs before respiration, is one-seventieth of the weight of the whole body; whilst after respiration has commenced, it amounts to one-thirty-fifth; or, in other words, that the blood introduced into the lungs in consequence of respiration, *doubles* their absolute weight. I shall hereafter consider this test more at length.

A third test has very lately been proposed by M. Beclard. He asserts that the lungs of a child which has not respired, but which float in consequence of artificial inflation, may be deprived of all the air introduced into them—preserve their original density—and sink in water. On the contrary, in a child which has *respired*, it is impossible by any pressure to force out the air so completely from the lungs, as to cause them to sink. This experiment is said to have been successfully repeated by M. Beclard, in the presence of witnesses.* As yet, I have not been able to subject to proof the foregoing test. I am, however, inclined to believe, that if carefully performed, it may be relied on.

A fourth test has been suggested by M. Marc. He considers that art can never completely inflate the lungs; and, from the greater difficulty which attends the admission of air into the *left* lung, he is induced to believe, that the inferior extremity of that lung will remain in a collapsed state, and float but imperfectly, or not at all.† This test is certainly ingenious, but, I think, quite inconclusive, inasmuch as the same appearances may be observed after natural respiration

* London Med. Repository, vol. 9, p. 161.

† Manuel D'Autopsie Cadaverique, &c. p. 138.

has taken place, and if so, it can furnish no ground of distinction between respiration and artificial inflation of the lungs. It is a curious fact connected with the history of incipient respiration, that the *right* lung receives air much sooner than the left. M. Portal first discovered this, and afterwards confirmed it by numerous experiments. In a kitten, which he killed a few minutes after it was born, the right lung was of a whitish colour, filled the whole cavity of the chest, and swam in water. The left was of a dark red colour, in a collapsed state, and sunk in water. He accounts for this interesting phenomenon, by showing that there is a difference in the size and direction of the bronchiæ leading to the two lobes. Upon examination, he found the right one about one-fourth part thicker, and one fifth shorter, than the left; besides, he found the passage to the right to be more direct than that to the left.*

III. It has been objected, that “a child will very commonly breathe as soon as its mouth is born, or protruded from its mother; and in that case, may lose its life before it is born, especially when there happens to be a considerable interval of time between what we may call the birth of the child’s head, and the protrusion of the body.”†

This objection did not originate with Dr. Hunter. It is noticed by Morgagni, and I find it discussed by the German writers early in the last century. It must be admitted, however, that the high authority of Hunter’s name has given to it an importance which it otherwise would never have possessed, and it is on this account more especially deserving of examination. It involves two points, each of which is worthy of distinct elucidation. Is it possible that a child can breathe, when nothing more than its head is delivered? and if so, is it probable, that after having respired in this situation, it will die before the delivery of the rest of the body?

* Duncan’s Medical Commentaries, vol. 1, p. 245. Am. ed.

† Dr. W. Hunter, in the Med. Obs. and Inq. of London, vol. 6, p. 287.

Although it is denied by some very respectable authors, that a child can perform the act of respiration when merely its head is born, yet the fact rests upon evidence too substantial to be contradicted. Independently of the authority of Dr. Hunter, we have several other writers who furnish us with decisive testimony on this subject. Marc alludes to a case of this kind reported by M. Siebold.* Capuron, a respectable French writer on legal medicine,† relates a similar instance which occurred in his own practice. And Oslander informs us, that he has witnessed twelve cases in which the child breathed and cried as soon as the head was born.‡ It must therefore be conceded, that a child may breathe and cry as soon as its head is delivered, although it is equally true, that it is by no means a common occurrence. Admitting, then, that a child may actually breathe in the situation we have supposed, is it probable that it will lose its life before the complete expulsion of the body? That it is not, appears to me of very easy demonstration; and if so, the objection loses at once almost all its force. Even among the writers who are most strenuous in support of this objection, I have not met with a single one who pretends to have witnessed an instance in which a child has actually died in this situation. Low, although he thinks it possible, relates no case of it. Dr. Hunter, whose professed object was to enforce all the probable exceptions to the hydrostatic test, gives us nothing more than his opinion, unsupported by facts. Mahon barely admits the possibility of it. Capuron, who is sufficiently sceptical on this subject, contents himself with recording the case already alluded to, in which the child was safely delivered. Even Oslander, with all his marvellous cases, does not present us with a single one of this kind. In point of fact, therefore, there is no instance recorded, so far as my knowledge extends, in which a child has actually ex-

* Manuel D'Autopsie Cadaverique, p. 140.

† Capuron, p. 405.

‡ New-York Med. and Phys. Journal, vol. 1, p. 372.

pired under these circumstances. This, however, does not prove that it might not occur; and it is therefore necessary to inquire into all the possible causes which might produce its death. If a child expires after the delivery of the head, and before the expulsion of the rest of the body, its death will probably be owing to one or other of the following causes: 1. Natural debility of the child. 2. Pressure on the umbilical cord, interrupting the foetal circulation. 3. Cessation of labour pains. 4. Unusual shortness of the umbilical cord. 5. A preternatural enlargement of the *body* of the child. 6. A tumour upon some part of the body of the child, mechanically interrupting parturition. I shall very briefly examine each of these in their order.

That *natural debility* on the part of the child cannot occasion it, seems to be proved by the very fact of respiration having taken place; for the exercise of that function so prematurely, necessarily implies a degree of vigour inconsistent with the supposition of such original feebleness.

That *pressure on the cord* should produce the death of the child, appears equally improbable. It is perfectly plain, that when this cause proves detrimental, it must be anterior to respiration, and when as yet the life of the child depends wholly upon the foetal circulation. In the present instance, however, the child is supposed to have already breathed, and therefore any accidental interruption in the foetal circulation cannot, in all probability, be attended with any injurious consequences.

Cessation of the labour pains. If, after the delivery of the head, there be a sudden cessation of the pains, there is no doubt that the child may be retained in this awkward situation for some time, and that it may even lose its life before it is completely expelled. Still it must be obvious, that the chance of such an issue is very much diminished in all those cases where respiration has actually commenced, inasmuch as the performance of this function proves not merely that

the child is vigorous, but also that its thorax and body are not so closely compressed by the parts of the mother as to endanger its life. Hence a child, under these circumstances, may be detained a considerable length of time, without jeopardizing its existence.

Unusual shortness of the cord. Cases of this kind occasionally occur. But here too the very fact of respiration having commenced, gives the child the best possible chance of being eventually born alive.

Preternatural enlargement of the body of the child, more especially of the shoulders, may prevent the delivery of the child, even after the birth of the head. That a child might die from this cause, is not disputed; but the very fact of its shoulders and chest being so large as to prevent delivery, shows how difficult, if not impossible, it would be, for it to respire. If, however, it did actually respire, then the hazard of a long detention in this situation, would, by this very circumstance, be materially diminished. In addition to all this, the cause would here be so very obvious on a bare inspection of the child, that no serious error could possibly arise from this source.*

* Since penning the above, I have received the following note from Dr. Hosack, communicating the particulars of a highly interesting case.

" New-York, June 28, 1823.

" Dear sir—You have been correctly informed of the fact you refer to, of the death of an infant taking place between the birth of the head and the extrication of the shoulders. Such a case occurred in my practice in this city in the year 1811.

Mrs. R——, a lady of a small delicate frame of body, and the mother of several children, engaged me to attend her in her lying-in. The commencement of her labour proceeded with the usual symptoms that she had experienced upon former occasions, excepting that she suffered more severely from her pains, doubtless attributable to the child being larger than those she had borne in her preceding labours.

Being absent from home when sent for, another physician was called upon. We both arrived nearly at the same time. The child's head was born. It had been in that situation, without making any advance, for some minutes. The child had cried, and was yet living when I arrived. The pains were very active, but one of the shoulders was so firmly wedged above the pubes, that with all our exertions we could not release the child in time to preserve it alive. It was still-born; and I need scarcely add, that upon examining the child, besides its extraordinary size, an unusual breadth of shoulders was found to exist, to which circumstance doubtless its detention in the passage through the pelvis was to be ascribed.

This fact, the only one of this nature which I have met with either in

A tumour on the body of the child. This, of course, must be a very rare occurrence, and can never lead to any false decisions. I mention it merely because a case of this kind is recorded, in which "the head of the child was protruded, and the expulsion of the body, for a considerable time, prevented, in consequence of a large excrescence on the left breast of the child. During this interval, which was about half an hour, the child frequently cried so loud as to be heard by the attendants."* It does not, however, appear even in this case, that the child eventually lost its life; at least nothing is stated to this effect in the account which is given of it. So far from supporting the objection of Dr. Hunter, which we are considering, it proves, in the most pointed and satisfactory manner, how little danger attends the child in this situation, when it enjoys the benefit of respiration. Besides, it should be recollected, that in all cases where delivery is prevented in consequence of the unnatural size of the parts about the shoulders, &c. the assistance of a physician, or at least of a second person, becomes necessary. A witness, therefore, will always be at hand, to remove every ambiguity which may surround them.

From the foregoing discussion, it may, therefore, fairly be concluded, that in reality very little danger attends the child under the circumstances which we have supposed.

I shall sustain this argument by the opinions of one or two writers, distinguished for their extensive experience, as well as practical sagacity. In a case of

practice or in the records of midwifery, presents a new case for the consideration of writers on legal medicine. As such I communicate it.

I am, very truly, yours,

D. HOSACK.

John B. Beck, M. D."

In addition to the particulars stated by Dr. Hosack, he informed me, that judging from the size of the shoulders, he believes it would have been impossible for the child to have been extricated from its situation, without the aid of manual assistance. In a case of this kind, therefore, no difficulty could ever arise in coming to a prompt and correct decision.

* Mahon's Essay on Infanticide, translated by Christopher Johnson of Lancaster. See note by Mr. Johnson, p. 25.

this kind, Burns directs that we should “attend to the head, examining that the membranes do not cover the mouth, but that the child be enabled to breathe, should the circulation in the cord be obstructed. *There is no danger in delay*, and rashly pulling away the child is apt to produce flooding, and other dangerous accidents.” In another place he says, “some children die, owing to the head being born covered with the membranes, some time before the body. This is the consequence of inattention; for if the membranes be removed from the face, there is *no risk of the child*.”* Denman also remarks, that “it was formerly supposed necessary for the practitioner to extract the body of the child immediately after the expulsion of the head, lest it should be destroyed by confinement in this untoward position. But experience has not only proved that the child is not, on that account, in *any particular danger*, but that it is really safer and better both for the mother and child, to wait for the return of pains, by which it will soon be expelled; and a more favourable exclusion of the placenta will also, by this means, be obtained.”†

On a review of the whole of this part of our subject, it results, that a child may occasionally breathe as soon as its head is delivered—that the very fact of its breathing in this situation, gives it the best possible chance of being born alive—and finally, if it should even die, the cause of its death will generally be at once evident upon a mere examination of the body of the infant.

From the preceding examination of objections‡ to

* Principles of Midwifery, p. 246, 376.

† Introduction to the Practice of Midwifery, p. 289.

‡ Another objection has been made against the hydrostatic test, which has not been considered in the text, because I have not been able to convince myself that the facts upon which it rests, ought to be accredited. I refer to the *crying of the child in the womb*. Cases of this kind are said to have occurred, and have been gravely published to the world. In the 26th volume of the Transactions of the Royal Society of London, Mr Derham gives an account of a child which cried almost daily for five weeks before delivery! Another case is detailed in the 73d No. of the Edinburgh Med. and Surg. Journal, by Dr. Zitterland of Strasburgh in Prussia. In this instance, the child is said to have been rather more civil than in the case of

the *Hydrostatic test*, I think we may safely come to the following conclusions :

1. That when the lungs float in water, it must be from one of three causes : natural respiration—putrefaction—the artificial introduction of air.

2. As the lungs may float from other causes beside respiration, their mere floating is no proof that the child was born alive.

3. As, however, it is possible to discriminate between the floating of natural respiration, and of that which is the result of other causes, it follows,

4. That, with due precautions, the floating of the lungs may be depended upon as a safe and certain test, that the child has been born alive.

I shall now proceed to examine another class of objections to the hydrostatic test, which have been much insisted upon, and which have tended, perhaps, no less than those which have already been considered, to shake the faith of the public with regard to its accuracy.

I. It has been objected that the child may have breathed, and yet the lungs, in consequence of diseases of various kinds, may have their specific gravity so increased as to cause them to sink in water. And, therefore, it is argued that the sinking of the lungs is no proof that the child was not born alive.

This objection has been deduced principally from analogy. It has been observed, that various morbid

Mr. Derham, and began to cry only forty-eight hours before it was born ! The most respectable writers on medical jurisprudence, however, deny the *possibility* of the occurrence, and ridicule the instances of it which are upon record. Mahon justly asks, whether “the best possible authority is sufficient to establish so extraordinary a fact ? Few writers,” he adds, “venture to say with Bohn, that they themselves have heard it. Three-fourths quote hearsay, and adduce witnesses. The love of the marvellous often distorts facts—it invents them, and finds authority and proselytes. On the report of a fact attested by credible witnesses, we may give our assent to whatever is not contradictory in itself ; but *conviction* is a much greater degree of assent, and requires other proof. Bohn may have been deceived by the parson’s wife ; he may have heard some gurgling noise, and may have been led away by a want of facts to prove his opinion. This mode of reasoning, and scarcity of facts, has given credit to Livy’s history of a child, which cried “*Io triumphe*,” in the belly of its mother. The folly has been carried so far, that we read of children that have laughed and cried in the uterus.” —Johnson’s translation of Mahon on Infanticide, p. 18, 19.

affections of the pulmonary organs of adults, as peripneumony, hydrothorax, calculi, schirri, ulcers, &c., will cause their subsidence in water, and hence it has been inferred, that the same might take place in the fœtus.

That the lungs of adults may undergo such changes from disease, as to cause them to sink in water, I am not disposed to deny, although I think it occurs less frequently than is generally believed. Haller informs us, that he has seen lungs of this description, which nevertheless continued to float. “Vidi sanguinem ex ruptis per funestam peripneumoniam vasis in pulmonem effusum, ut tamen nataret; vidi schirrhos, calculos, et lymphaticum coagulum, ut minime tamen subsideret.”* He admits, however, having seen a case of peripneumony, in which the lungs sunk in water, and he adduces several other cases of a similar nature upon the authority of others.† Heister records the case of a young man who died of phthisis, whose lungs were specifically heavier than water.‡ De Haen relates, that he met with three or four cases, in which portions of the lungs of adults sunk in water, and, he adds, that Diemerbroeck witnessed the same in a patient whose lungs were in a schirrous condition.¶ Hoffman details the case of a young man who died of pneumonic fever, in whose lungs the same was observed.§ In speaking of the dissections of those who died of pleurisy, in the Island of Minorca, Cleghorn says, that “in many the lungs were converted into a hard liver-like substance, and *sunk in water.*”|| Dr. Baillie confirms the same general fact. “In consequence,” says he, “of the greater quantity of blood being accumulated in the inflamed portion of the lungs, they become considerably heavier, and will *frequently sink in water.*”** Finally there is recorded, in a late Journal, a case of “condensed lungs,”

* Elem. Phys. vol. 3, p. 281.

† Ibid.

‡ Hebenstreit, p. 401.

¶ Ratio Medendi, p. 114.

§ Opera Omnia, vol. 2, p. 140.

|| Observations on the Epidemical Diseases of Minorca. By Geo. Cleghorn. P. 159. Am. ed.

** Morbid Anatomy, p. 33, Am. ed.

occurring in a subject twenty-four years of age, and which immediately sunk on being immersed in water.* These facts are sufficient to illustrate the grounds upon which the objection rests. And they prove incontestibly, that the lungs may occasionally be rendered, by disease, specifically heavier than water. It cannot be admitted, however, that these morbid conditions will frequently occur in the foetus, for it is not exposed to the influence of the causes which usually produce them. Haller, notwithstanding his great experience and extensive learning, relates no instance of it, and expressly asserts, that they are very rarely found in the foetal state. “*In adulto homine aliquando, in fetu rarissime, ut pulmo calculis, schirris, aliave materie, morbose gravis in aqua subsideat, etsiquam respiraverit.*”† Brendel in speaking on this subject, relates only a single case of an abortive foetus which had schirrous lungs, and considers it a singular occurrence.‡ I shall only add, in confirmation on this point, the opinion of Dr. Duncan, Jr. the accomplished editor of the *Edinburgh Medical and Surgical Journal*. “*Unquestionably a piece of inflamed lung will sink in water like a piece of liver, but we doubt that such inflammation was ever observed in the lungs of a new-born infant, concerning which a question of its having been still-born could arise; and we deny the fact, that any portion of lungs which have breathed, will ever be rendered specifically heavier than water, by the mere settling of the blood in the lower portions after death.*”||

It appears then, as well from reason as from facts, that the objection is founded upon the existence of circumstances barely possible, and by no means probable; as such, however, it demands consideration, and it is necessary to suggest the means by which a false judgment may be prevented.

For this purpose we have a test both simple and

* *Edinburgh Med. and Surg. Journal*, vol. 4, p. 301.

† *Element. Physiol.* vol. 3, p. 281.

‡ *Brendelius*, p. 10.

|| *Edinburgh Med. and Surg. Journal*, vol. 12, p. 79, 80.

certain. The objection takes it for granted that the child has breathed ; whether feebly or vigorously is a matter of no consequence. Some part, therefore, of the lungs *must* contain air, and although the quantity of it may be too small to cause the whole lungs to float, yet if they be divided into a number of pieces, and any of them remain on the surface, there cannot be a moment's hesitation about the conclusion to be drawn. Foderè states that he frequently made experiments upon lungs that were schirrous, or had congestions of blood; and he uniformly found, that although they sunk when put into water entire, yet, when cut into pieces, some of them always floated.*

II. It has been objected, that a child may have actually breathed, but yet so feebly and imperfectly, that the lungs shall not have received air sufficient to enable them to float : and hence it is argued, that the sinking of the lungs is no proof that the child was born alive.

In support of this objection, facts of a very pointed nature have been adduced. Heister relates the case of a very feeble infant, whose lungs sunk in water, though it lived nine hours after birth.† And a late writer on Infanticide states, that he had been informed by a physician to the Foundling Hospital at Naples, who opened daily, on an average, the bodies of ten or twelve infants, which had generally died within twenty-four hours after birth, that he hardly ever found more than a very small portion of the lungs dilated by air : this portion was frequently not larger than a walnut in its green shell, and but rarely larger than a hen's egg, and it was commonly situate in the right lung.‡

The same method must be here adopted, as in cases where the lungs are diseased : they must be cut into several parts, and experiments instituted upon each.

* Foderè, vol. 4, p. 487.

† Morgagni's Works, vol. 1, let. 19, p. 536.

‡ A Dissertation on Infanticide, in its relations to Physiology and Jurisprudence. By W. Hutchinson, M. D. 1820.

However imperfect the respiration has been, some portion of the lungs will necessarily be inflated, and therefore must float.

III. It has been objected, that a child may be born alive without breathing; and therefore, in these cases, the sinking of the lungs is no proof that the child was not born alive.

The fact upon which this objection is raised, cannot be questioned; nevertheless it is both safe and just to consider as dead every child that has not breathed. Governed by such a rule, any error that may be committed will always be on the side of mercy. It is true, that certainty is as desirable here as in any other case, for the destruction of a feeble child is a crime as enormous as that of a vigorous and healthy one, and the punishment of the murderer of the one, is equally an object of public concern with that of the other. But, in the language of a distinguished writer on this subject, "*pour le punir, il faut le constater; et lorsque les limites de l'art nous refusent le degré de certitude que nous ambitionnons, la clémence, que dis-je, la crainte d'immoler l'innocence devra l'emporter sur toute autre considération.*"*

This objection so far from showing the inconclusiveness of this test, serves only to establish more clearly its absolute necessity. It is by resorting to it alone, that the sacrifice of innocence can be prevented, for who would assume the responsibility of deciding that a child had been born alive, when no evidence could be discovered of its having respired?

From the foregoing considerations, it may therefore be concluded,

1. That when the lungs sink in water, it must be from one or other of the following causes: the total want of respiration—feeble and imperfect respiration—some disease of the lungs rendering them specifically heavier than water.

2. As the lungs may sink from other causes than

the absence of respiration, their *mere sinking* is no decisive proof of the child's having been born dead.

3. As, however, the sinking from the want of respiration may easily be distinguished from that which is the result of other causes, it follows,

4. That with due precautions, the sinking of the lungs is a safe test that the child was not born alive.

I have now gone through the discussion of this subject; and although the general conclusion is decidedly in favour of the accuracy of the hydrostatic test, yet nothing can be plainer than the necessity of an extensive acquaintance with the subject, to enable the professional witness to do justice to himself and to the cause of truth. It is much to be feared, that from the ignorance of some, and the precipitancy of others, great and fatal errors have not unfrequently been committed. It may not, therefore, be improper to present a summary of *practical rules*, for the guidance of the physician when called to the examination of a case, which, of all others, demands a combination of the exercise of the soundest judgment, and the most profound knowledge.

1. As preliminary to any examination of the lungs, the child should be weighed, and the general appearance and condition of the body should be particularly noted, with the view of ascertaining the following points, viz: if the child be full grown—if the different parts of its body be well proportioned—if the shoulders be uncommonly large, when compared with the size of the head—if any tumours are to be found upon the body—if the cord be unusually short—and, finally, if any symptoms of putrefaction be present.

2. The chest should then be carefully opened, and the following things noticed: the general shape of the thorax, whether it be much arched or otherwise—if the lungs be collapsed or dilated—whether they cover the lateral parts of the pericardium and heart—whether their colour be deep red or lighter—whether there be any appearance of disease or of putrefaction.

3. The next step is to remove the contents of the chest, for the purpose of performing the necessary experiments upon the lungs. The aorta and vena cava should first be tied near the heart, and then cut beyond the ligatures: the trachea should then be also divided. The lungs, together with the heart, are now to be taken out of the chest, and to be submitted to an additional inspection, to ascertain whether they are sound or diseased, and if they are at all affected by putrefaction.

4. A convenient vessel containing water should now be provided, and particular attention should be paid to the temperature of the water, in which the lungs are to be immersed. The reason of this will be perfectly obvious, when it is recollected, that the specific gravity of water varies with its temperature: thus, for instance, water at 100 deg. is lighter than water at 60 deg. and still lighter than at 40 deg. Besides, if the water be too hot, it will have the effect of expanding the lungs, and thus favour their floating, especially when there already exists a tendency to putrefaction. If, on the contrary, its temperature be too low, the air cells may be contracted, and much of the air be thus expelled. The temperature of the water should therefore be regulated by that of the surrounding air. Another precaution relative to the water is, that it should not be impregnated with *salt*, for, in consequence of the greater specific gravity of saline water, a body might float in it, which would sink in fresh water.

5. The lungs, together with the heart, should then be cautiously placed in water, and it should be observed whether they float or sink: if they float, whether above the surface of the water, or just under it; if they sink, whether they do so rapidly or gradually.

6. The lungs should then be taken out of the water, and after tying the pulmonary vessels, they should be separated from the heart, and accurately weighed.

7. The lungs should then be replaced in the water, to see whether they sink or float, and in what way.

8. The two lobes should then be separated, and the same experiment repeated upon each, noticing the difference, if any, between them. If one only floats, see if it be the *right* one.

9. Each lobe should then be divided into a number of pieces, taking care not to confound the fragments of one lobe with those of the other, and upon each of these the same experiments should be instituted.

10. While cutting the lungs, observe if there be any crepitus ; if the vessels are charged with blood ; and if there be any traces of disease.

11. If any of the sections of the lungs float, they should be taken and squeezed forcibly in the hand, and then replaced in the water, to determine whether after this they will sink.

Having gone through these different processes, the conclusions to be drawn from them are evident. If there is nothing to be discovered on the body of the child, to favor the belief that it might have lost its life during delivery—if the lungs be not touched by putrefaction, nor be artificially inflated—if on cutting into them, a crepitus be perceptible—if the entire lungs, as well as the separate divisions of them, remain on the surface of the water—if, after squeezing portions of the lungs, they still continue to float—then the mass of evidence is irresistible, that the infant was born alive, and enjoyed perfect respiration. If only the *right* lung, or its pieces, float, the respiration has been less perfect. If some pieces only float, while the greater number sink, it proves respiration to have been still less complete. On the other hand, if neither the entire lungs, nor any section of them, float in water, the inference is decisive, that the child never respired.

Having noticed at sufficient length the various circumstances relating to the hydrostatic test, I shall next consider,

(b) *Ploucquet's test.* This test was first announced by its author, M. Ploucquet, in 1782; and I have already had occasion to explain the principle upon which it is founded.*

Beautiful and decisive as this test appears to be, and correct as the general principle upon which it is founded certainly is, objections of a very serious character have been brought against it. For the purpose of showing to what confidence it is entitled, it may be proper to notice some of the more important objections.

Examination of objections. I. There is no fixed proportion between the weight of the lungs and the weight of the body.

An appeal to facts and experiments must of course determine the value of this objection. It seems to be conceded on all hands, that M. Ploucquet deduced his theory from a very limited number of experiments. In one child born dead, he found the comparative weight of the lungs to the body to be as 1 to 67; in another, as 1 to 70; in a third which had been born alive, it was found to be as 2 to 70, or as 1 to 35. These were all the experiments which he had made when he promulgated the general conclusion which he drew from them. As might naturally be expected from the novelty and importance of the subject, it has since then attracted the attention of the ablest medical jurists, and their researches have tended very materially to diminish the confidence originally placed in this test. The most extensive experiments yet made on this subject, were those conducted by M. Chaussier at Paris, and M. Schmitt at Vienna. The following are the results of some of their observations :

* See page 236 of this work.

Experiments on the bodies of infants who had respired.

M. Schmitt.				M. Chaussier.				M. Schmitt.				M. Chaussier.			
Weight of the body.	Weight of the lungs.	Proportion between the lungs & the body.	Weight of the body.	Weight of the lungs.	Proportion between the lungs & the body.	Weight of the body.	Weight of the lungs.	Proportion between the lungs & the body.	Weight of the body.	Weight of the lungs.	Proportion between the lungs & the body.	Weight of the body.	Weight of the lungs.	Proportion between the lungs & the body.	Weight of the body.
Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.	Gram.
1012	35	1 to 29	1025	38	1 to 28	659	18	1 to 36	650	6	1 to 108	650	6	1 to 108	650
1065	36	16	1100	32	34	878	22	39	900	19	48	900	19	48	900
1091	66	31	1168	25	44	1053	70	37	1051	16	50	1051	16	50	1051
1099	35	39	1224	17	43	1361	38	37	1400	60	23	1400	60	23	1400
1222	31	39	1250	46	36	1572	39	40	1591	38	42	1591	38	42	1591
1237	18	70	1250	41	31	1577	30	47	1625	66	25	1625	66	25	1625
1466	28	52	1469	25	59	1915	41	44	1900	52	37	1900	52	37	1900
1518	31	48	1520	39	39	2030	35	59	2080	46	43	2080	46	43	2080
1653	43	43	1850	43	43	2177	32	67	2200	37	69	2200	37	69	2200
1968	22	87	1958	81	68	2221	28	79	2250	97	26	2250	97	26	2250
2002	54	37	2000	72	28	2352	54	43	2350	40	54	2350	40	54	2350
2160	57	38	2150	60	36	2589	74	61	2570	30	86	2570	30	86	2570
2366	46	51	2360	38	62	2548	40	61	2650	47	58	2650	47	58	2650
2404	36	66	2400	74	32	2758	35	79	2750	73	37	2750	73	37	2750
2491	70	35	2490	97	26	2931	44	67	2950	48	62	2950	48	62	2950
2758	87	31	2750	93	28	3102	70	54	3100	57	55	3100	57	55	3100
2893	49	59	2900	54	54	3312	61	54	3324	41	81	3324	41	81	3324
2998	70	42	3000	113	27	3451	49	54	3350	54	62	3350	54	62	3350
3207	61	52	3250	69	50	3502	61	54	3600	50	72	3600	50	72	3600
2294	20	41	3300	75	44	3660	57	64	3672	41	90	3672	41	90	3672
3731	75	49	3650	105	35	4150	50	83	4161	63	50	4161	63	50	4161
4150	105	39	4040	42	96	4185	83	50	4300	106	41	4300	106	41	4300

Mean proportion, $\frac{528}{39} = \frac{1091}{1225}$ Mean proportion, $\frac{80}{49} = \frac{1105}{1105}$

II. Even admitting that there is a fixed proportion between the weight of the lungs and the body, it is very different from that of M. Ploucquet.

This objection is certainly supported by the experiments of Schmitt and Chaussier already recorded, as also by those of Hartmann. This latter physician makes the proportion to be, in an infant which has not breathed, as 1 to 59, and in one which has breathed, as 1 to 48.

III. A third objection to this test is, that an excessive congestion of blood might occur in the lungs of a foetus that had never respired, which should render them equal in weight to the lungs of a foetus which had respired.*

* Mahon, vol. 2, p. 454.

* Dictionnaire des Sciences Medicales, art Doctmasie Pulmonaire—and a translation of the same in the Western Quarterly Reporter, No. IV.

To this M. Ploucquet himself replies, that it is not possible for such a congestion to take place in lungs that have never respired, as shall render their weight equal to that consequent upon respiration, because the foramen ovale and the canalis arteriosus, offer so easy a passage to the current of blood, even when flowing with the greatest rapidity, that no determination of consequence can exist towards the pulmonary vessels.

IV. A fourth objection has been drawn from the alteration produced by putrefaction, in the relative weight of the lungs and body.

On this, Professor Mahon remarks, "that this may be the case if the putrefaction be very great, but then the fœtus cannot be subjected to any examination upon which a medico-legal decision can be founded. But if the putrefaction has not advanced far, as the lungs resist its effects longer than any other part, we may try the application of the proposed test, to corroborate the results afforded by the hydrostatic trials."†

With the view of satisfying myself with regard to the correctness of the test of M. Ploucquet, I had commenced a series of experiments, which nothing but the want of subjects has prevented me from prosecuting as extensively as I originally contemplated.

Exp. 1. New-York, April 5, 1821. I was requested by the coroner to examine a male child, which had been found dead, exposed in one of our streets. From the size and appearance of the child, and from a variety of concurring observations upon the lungs and other parts of the body, no doubt remained that the child had been born alive, and had performed complete and perfect respiration. In this case, the relative weight of the lungs and body was as 1 to $35\frac{1}{4}$.

Exp. 2. Feb. 2, 1822. A female child, found exposed in Anthony-street, was examined by Dr. Dyckman and myself, in the presence of the coroner. The child had evidently respired. In this case, the proportion of the lungs to the body was as 1 to $37\frac{1}{2}$.

† Mahon, vol. 2, p. 454.

Exp. 3. June 26, 1821. Examined a child which had been found in a sink—appeared to be of full size. The whole body was in a state of putrefaction; the lungs were also found in a similar condition. After a very careful and minute examination, I satisfied myself that the child had *not* been born alive. The proportion here between the weight of the lungs and the body, was as 1 to $46\frac{1}{2}$.

Exp. 4. May 7, 1822. Dr. J. W. Francis requested me to inspect with him a fœtus, the delivery of which he had attended three or four days previously. It had reached about the fifth month, and was judged to have been dead in the uterus about six days before delivery, owing to an accident which had happened to the mother. The fœtus was at present in a state of incipient decomposition; the lungs, however, were perfectly sound. The proportion between the weight of the lungs and the body, was as 1 to 29.

Exp. 5. Oct. 18, 1822. Another case, similar to the preceding, was examined by Dr. Francis and myself. The child was born between the fifth and sixth month, in a state of decomposition. The lungs were perfectly sound. The proportion between the lungs and the body, was as 1 to $39\frac{5}{7}$.

The two first of the cases just detailed, certainly go to support the correctness of Ploucquet's test. The approximation is unquestionably as near as the nature of the case is capable of. The three last seem to prove that putrefaction does effect a material change in the relative weights of the lungs and body.

Notwithstanding, therefore, all that has been urged against the test of Ploucquet, I cannot conclude from my own observations, that it should be entirely rejected. Like every other test of this kind, however, it must be used with caution; and in all instances where putrefaction has assailed either the body or the lungs of the child, or both, no dependance is to be placed upon it.

After all, further observations are still called for, to settle the doubts occasioned by testimony so discord-

ant, and even contradictory, as that presented to us on this subject. In no other way can we hope to reach a satisfactory conclusion. And it is to be wished that practitioners of midwifery would not neglect the multiplied opportunities daily presented to them, of enlarging our stock of knowledge on this interesting and important question.

(c) *Daniel's test.* The principle of one of the tests proposed by M. Daniel, is the same as that of the test of Ploucquet. He judges of the reality of respiration having taken place, from the increase of weight which a given quantity of water gains upon squeezing out the lungs into it. He thinks it may be known also from measuring the periphery of the thorax and lungs, and comparing their dimensions with those of an infant which has not respired. With regard to these, it must be granted, that the first is inferior in precision to that of M. Ploucquet; whilst in the second, it is necessary that the observations and measurements should be so exact, that many errors might and would undoubtedly occur.

(d) *The descent of the Diaphragm.* It is very evident that as soon as respiration commences, the cavity of the chest must necessarily be enlarged in every direction to give play to the action of the dilated lungs. In consequence of this, the chest externally becomes more elevated and arched, and internally the diaphragm descends. To a person accustomed to the examination of subjects, this descent will be obvious, and taken in connection with the other signs of respiration, is one of considerable importance.

(e) *Diminution in the size of the liver.* It is a fact universally known, that previous to the birth of the foetus, the liver is much larger than it is afterwards. From the changes which take place in the circulating system immediately upon the commencement of respiration, the cause of this diminution in the size of the liver becomes very obvious. It has already been stated, that prior to respiration the lungs have scarcely any blood circulating through them—hence they are

small and collapsed. As soon however as respiration is established, the pulmonary vessels become charged with blood—the lungs are consequently much enlarged, and their actual weight greatly increased. Now there is no question that this blood is chiefly derived from the liver, and to this cause must its lessened size be principally attributed. Besides supplying the lungs with blood, there is another beneficial purpose answered by this diminution of the liver. If the lungs become enlarged and dilated, it is evident that the cavity of the chest must also be proportionably augmented, to enable them to perform their functions without restraint or injury. By the diminution of the liver this is most effectually accomplished, inasmuch as by it the cavity of the abdomen is thus lessened and the descent of the diaphragm facilitated.*

If this be a correct exposition of the reciprocal relations of the foetal lungs and liver, it appears to me that an examination of the state of the *liver* must throw very considerable light upon the question of a child's having been born alive.

If the size of the liver in the foetal state, be owing to the large supply of blood which it then receives, and if it uniformly loses a portion of this blood after respiration commences, it strikes me that a comparison of the weight of the liver before and after respiration, with the weight of the whole body, would assist us very materially in deciding whether a child had been born alive or not. The *principle* upon which the proposed test is founded, is certainly just, and in practice it would not be liable to more serious objections than that of M. Ploucquet. On the contrary, it might serve in all cases to prove the accuracy of this latter test. To exemplify—if by the application of the test of Ploucquet in a case of supposed infanticide, it should be found that the lungs had acquired the weight of those of a child that had respired, and if by a subse-

* For a very able and satisfactory account of the state of the foetal liver, see the paper of Mr. Bryce, published in the *Edinburgh Med. and Surg. Journal* for January, 1815.

quent examination of the liver, it should appear that this organ had lost none of its foetal blood, then there would be just ground for suspecting that the increased weight of the lungs was owing not to respiration, but to some other cause.

On the other hand, if experiments upon the liver should indicate that respiration has taken place, while the lungs themselves exhibit no sign of it, then the diminished weight of the liver must be attributed to some other cause, and no possible error could arise from this source.

If, however, experiments both upon the liver and the lungs, coincide in supporting the same opinion, who will deny that this concurrence of different tests would add greatly to the force and conclusiveness of the testimony.

By no writer on forensic medicine that has fallen under my examination, has this test been suggested ; and I throw it out at present, in the hope that it may attract the attention of inquirers on this interesting subject.

It should never be forgotten by those engaged in medico-legal decisions, that any single individual test taken apart from all others, must necessarily be unsatisfactory. In proportion, therefore, as proofs and tests become multiplied, are the chances of deception and erroneous judgments diminished ; and more especially is this the case, when these proofs come in full and direct support of each other. They then furnish a mass of clear and consistent evidence, capable of satisfying both the witness and the judge.

(f) *The discharge of the meconium.* Authors do not agree with regard to the nature of the meconium. The opinion, however, which seems most plausible, considers it to be the bile collected in the foetal liver, and which is propelled from that organ into the intestinal canal, by the compression which the liver necessarily sustains as soon as respiration commences.* The same

* Bryce on the foetal liver. Edin. Med. and Surg. Journal. Blumenbach's Physiology, p. 359, Am. ed.

compression afterwards expels it from the intestinal canal. Upon this principle, the connection between respiration and the discharge of the meconium, is perfectly plain. Too much stress should not, however, be laid upon this circumstance. For although Mr. Bryce asserts, that "there is no instance in which infants born at the end of the ninth month, have ever suffered this evacuation previous to their birth," yet we have the high authority of Dr. Denman to the contrary, who states, that he met with a case in which the meconium was discharged upwards of thirty hours before the child was born.*

(g.) *The state of the bladder.* Anterior to birth, it has been ascertained that the bladder contains a considerable quantity of urine. If, therefore, on examination it should be found empty, the presumption is in favor of the child having been born alive, and of having lived sufficiently long to pass its urine by its own efforts. It is obvious, however, that this test is liable to many exceptions, and should not therefore be infallibly relied on. It is not impossible that under certain circumstances, a child may void its urine before birth, and on the other hand, a child born alive, may die before it has performed that function.

Having considered the various proofs by which it may be known whether a child was born alive, we are next to inquire into the means by which it came to its end.

Of the various means by which a child's death may be caused. These are classified by systematic writers, as those of *omission*, and those of *commission*. The former include all those which prove fatal by the neglect of those precautions, which are necessary to be attended to immediately after the birth of the child; the latter embrace all direct acts of violence, designed to take away life. The division is certainly a happy one, as it leads to a distinction of some consequence in practice. It keeps constantly in the

* Introduction to the practice of Midwifery, p. 395.

view of the physician and the jury, the important truth, that most of those belonging to the one, *may* be palliated or explained on the grounds of ignorance, or want of presence of mind ; whilst the other are more generally the products of premeditated malice, and therefore cannot lay claim to the same sources of justification.

Infanticide by omission. (a) The death of a child newly born, may be caused by *omitting* to remove it from that state of supination,* in which it sometimes comes into the world. In this way, respiration may be effectually prevented, by the mouth of the child being closely applied to the bed clothes, or other substances in its way. Dr. W. Hunter relates an instance of a child dying, from its face lying in a pool made by the uterine discharges, where not the least suspicion of any evil design appears to have been attached to the mother.† A case in some respects similar, lately occurred to myself. A woman, whom I had engaged to attend in her lying-in, was suddenly taken with labour pains, rather before the time the event was anticipated. I was sent for shortly after, but before I reached the house, she had been delivered of a male child, which I found lying dead under the bed clothes. The mother informed me that the child had been born about half an hour, and that she had heard it cry, but as she was alone, she had been unable to give it any assistance. Not the slightest suspicion of any criminal intention could for a single moment be cherished. The woman was married, and had engaged me to attend her some weeks before the event took place. In all cases, therefore, in which death arises from this source, the circumstantial evidence must decide their criminality.

(b) *Omitting* to preserve the necessary warmth of the child. It is needless to dwell upon the necessi-

* Foderè, vol. iv. p. 504.

† Observations on the uncertainty of the signs of murder in the case of bastard children.

ty of those precautions, which are generally resorted to, after the birth of a child in order to preserve a proper degree of temperature. They are founded equally upon experience and good sense. If, therefore, they have been neglected in any case, it is just to attribute it to *design*, unless the circumstances of the delivery render it probable that it proceeded from ignorance, or want of the proper means. In either case, however, the physician may be called upon to decide, whether the death is to be attributed to the action of the cold, or to some other cause. The remarks of Foderè on this point are so very just, that I cannot do better than quote him : “If the body of an infant is found stiff, discoloured, shrivelled, and naked, or with only a slight covering on it in a cold place, buried under stones, or under the earth, and from trials upon the lungs, it is evident that it has respired ; and if the great internal vessels are found gorged with blood, accompanied with an effusion of blood into the cavities, whilst the cutaneous vessels are contracted and almost empty, and when no other cause of death can be detected, one cannot do less than attribute it to the cold, and consider this abandonment and neglect of care, the necessity of which are obvious to the dull-est comprehension, as a manifest intention to make away with the child.”*

(c) *Omitting* to administer proper nourishment, may occasion death. It is not easy to say how long a new-born child may sustain life without food. It is evident, however, that it ought not to be delayed for any length of time. Foderè says the neglect of it for twenty-four hours, is not unattended with danger. When death is occasioned by this circumstance, it may be known by the general emaciation of the body—by the fetid and pungent odour which exhales from it, although the death be very recent—by the eyes being open, and of a red colour. On dissection, the intestines are found completely empty—the gall bladder

* Foderè. vol. 4, p. 505.

enlarged—bile is effused into the stomach and intestines—the lungs appear withered, although without any lesion; and otherwise, all the viscera are in a sound condition.*

(d) *Omitting* to tie the umbilical cord. The majority of medical practitioners, from the time of Hippocrates down to the present day, concur in the necessity of tying the cord, to obviate fatal hæmorrhage which might ensue from the omission of it. Such was the unanimity of opinion on this subject, that previous to the 17th century, a doubt was not entertained with regard to it. According to Foderè,† *J. Fantoni*, professor of anatomy at Turin, was the first who suggested that this precaution was useless, and that the neglect of it was unattended with any danger to the life of the child. After his time, the same opinion was adopted and defended by *Michael Alberti*, in 1731, and *J. H. Schultzius*,‡ in 1733, both professors in the university of Halle. In 1751, *Kaltsmidt* maintained the same doctrine at Jena.¶ The arguments offered by them in defence of their opinion are the following: 1st, They maintain that the umbilical vessels, whether cut or torn, have a sufficient contractile power to prevent any great loss of blood. 2d, That, because in other animals it is not necessary to tie the cord, therefore it is equally useless in the human species. 3d, *Kaltsmidt* adduces an argument from the analogy of arteries contracting spontaneously in some surgical operations, and he thence infers, that a similar contraction would take place in the vessels of the cord.§

All these arguments are, however, inconclusive, when subjected to the test of fair inquiry. They consist either of bold assertions, or false inductions. With regard to the *first*, it is by no means true, as a general rule, that the umbilical vessels do contract sufficiently to prevent fatal hæmorrhage. A few cases are indeed related, to the truth of which it would be

* Foderè, vol. 3, p. 238.

† Ibid. vol. 4, p. 502.

‡ In a dissertation entitled, *An Umbilici deligatio in nuper natis absolute necessaria sit*, Halæ, 1733.

¶ Foderè, vol. 4, p. 509.

§ Mahon, vol. 2, p. 422, &c.

difficult not to give our assent, but they may be considered as solitary exceptions, when it is known that almost every practitioner in midwifery can testify to the fatal effects resulting from a wilful or accidental neglect of tying the cord.*

The *second* argument is no less unfounded than the first. That there is some difference in the structure of the human cord and that of other animals, is not merely a rational conjecture, but proved by actual observation. Professor Brendel, in examining pups and heifers, found their umbilical vessels full of rugæ or folds throughout the whole of their course, and their size much less, also, in proportion.† In another place, the same writer says, that in brutes the vessels of the cord are much smaller than in man, and that when the animal is born, they are, in a measure, closed by a kind of cellular structure.‡

From this it appears, that in brutes there is a peculiar construction of the vessels of the cord, tending to interrupt the flow of blood through them, and favouring their speedy contraction after they have been cut. Besides, the manner in which the cord is separated in brutes facilitates contraction. It is never *cut* in them; it is *torn asunder*, and the disposition of a vessel to contract under such circumstances is much greater.

The *third* has still less force than either of the foregoing arguments. That arteries of inconsiderable magnitude sometimes contract spontaneously, is granted. But that vessels of a size equal to that of the umbilical ones, do contract of themselves, cannot be admitted, when we know that very dangerous hæmorrhages sometimes occur from vessels even much smaller than those of the cord.

If, therefore, it can be proved that this precaution has been wilfully neglected, it is perfectly fair to impute it to an intention to destroy the child. It should not be forgotten, that in many instances it may result from ignorance, as in a first case of pregnancy, where

* Burns' Midwifery, p. 447, 3d ed. Hosack's MS. notes on Mid. &c. &c.

† Medicina Legalis sive Forensis, p. 19.

‡ Ibid. p. 189.

the mother may be wholly unacquainted with the danger arising from the neglect of this circumstance.

As death arises here solely from the loss of blood, it may be detected by an examination of the heart and arteries. It is well known, that in the bodies of those who have not died of hæmorrhage, the arteries are found empty, whilst the heart and the veins are distended; hence, if not merely the arteries but also the heart and veins of a child are found destitute of blood, it is a certain proof of its having died of hæmorrhage.

Infanticide by commission. (a) Premature tying of the umbilical cord. We know that the circulation by the cord, and respiration, are vicarious functions, and if one be interrupted or destroyed before the other is in operation, life must cease. It is accordingly laid down as an invariable rule by practical writers, that the cord should never be tied or divided, until respiration has been perfectly established.* It would be difficult, however, when death arises from this source, to impute it to a malicious design, as the presumption would generally be, that it arose from ignorance, except where a professed accoucheur was implicated.

(b) Wounds and bruises. These resemble so much similar injuries in the adult, that it is useless to dwell at any length upon them. It should be recollected, that the heads of children are sometimes very much swollen from compression, during a difficult and tedious labour. This, therefore, should not be confounded with those swellings and bruises which are consequent upon blows voluntarily inflicted after birth.†

* Burns' Midwifery, p. 447, 3d ed.

† To ascertain the effects upon the head of a child falling from different heights, the following very instructive experiments were made at the Lying-in Hospital, and are detailed by Lecieux :

"1st. Fifteen infants who had died after their birth, but in whom there was no alteration in the bones of the cranium, were selected, and after having been raised up by the feet so that the head was at the height of about eighteen inches, were suffered to fall perpendicularly upon a hard floor, and by anatomical examination, it was found that in twelve of them, there was a longitudinal or angular fracture of one of the parietal bones, and sometimes of both.

"2d. In the same manner fifteen infants were suffered to fall from a

One of the most common methods of destroying a child, appears to have been that of thrusting a sharp instrument into its head through the fontanelles. Gui-Patin relates of a midwife who was executed at Paris for having murdered several children, by plunging a needle into the head while presenting at the os externum.* Brendel also speaks of the same horrible practice. An instance of this kind is related by Belloc, where, upon examination, he found the instrument had penetrated to the depth of two inches into the substance of the brain.† In such cases, it is necessary to shave the head, when a slight ecchymosis will be found around the puncture; and it is then proper to pursue the examination into the substance of the brain, to discover the extent of the wound. Indeed, this minute anatomical investigation is absolutely requisite to detect the nature of the injury, for tumours and extravasations on the scalp and other parts of the body may occur during delivery, and wholly unconnected with any malicious intent. Needles, or other sharp instruments, are sometimes thrust into other parts of the child, such as the temples, the internal canthus of the eyes,‡ the neck, the thorax about the region of the heart,|| and the abdomen. Similar in-

height of three feet, and on dissection there was found, in twelve cases, a fracture of the parietal bones, in some extending to the os frontis. When suffered to fall from a greater height, the membranous commissures of the cranium were relaxed, and even broken in some places; frequently the form of the brain was changed, and in some cases there was found under the meninges, or in the thick part of the meninges, an ecchymosis, an extravasation of blood produced by the rupture of vessels; and it was only in infants whose bones were very soft and flexible, that no fracture was found.

"3d. After having placed on a table the head of a child that had died soon after its birth, it was pressed in different places very strongly by the two thumbs on different parts of the surface; and in fifteen experiments of this kind, seven caused longitudinal fractures of greater or less extent in one or other of the parietals; in others, there was only perceived a depression or sinking of the bones. In the greatest number, the head was deformed or flattened, and the membranous commissures exhibited a sensible relaxation.

"4th. Finally, the head, supported on a table, was struck strongly, and in different places, with a short round stick. This experiment always caused a deformity or flattening of the head, multiplied fractures, with separation of splinters, relaxation, in some places rupture of the sutures, and finally extravasation of blood."—*Dict. des Sciences Med. and West. Quarterly Reporter*, No. 3.

* Mahon, vol. 2, p. 409.

† Cours de Med. Leg. p. 93.

‡ Prælect. Academ. J. G. Brendelii, p. 188.

|| Foderè, vol. 4, p. 492.

vestigations with those above mentioned must be resorted to in all these cases, and where, from the situation of the wound, it is evident that it must have been inflicted after delivery, particular attention must be paid to the state of the lungs, to discover if the child had respired.

In all examinations of contusions, two cautions ought to be observed: viz. to distinguish them from the discoloured spots which appear on the surface of the body at the commencement of putrefaction, and, not to confound accidents which may occur during dissection, with those resulting from blows and other acts of violence.

(c) The death of a new-born infant may be caused by *preventing its respiration*. This may be accomplished in various ways; viz. by drowning, hanging, or strangulation—smothering under bed-clothes, &c.—suffocating, by thrusting various articles into the mouth and nostrils.

Drowning. If a child is found immersed in water, the questions to be determined are, Was it born alive? and was it put into the water before or after its death?

As the subject of drowning will be discussed in a subsequent chapter, it is unnecessary to say any more concerning it at present, than that the signs of it in the new-born infant are precisely the same as those in the adult.

Hanging or strangulation. Where a cord has been used, a circular mark will be perceived around the neck; in other instances, ecchymoses will be found on the neck—the face livid—tongue swollen and projecting, and mouth frothy. On dissection, the vessels of the pia mater and the jugular veins are gorged with blood, and the lungs are livid and covered with spots. It is objected to the correctness of any decision unfavourable to the accused, that all these signs may have been the result of accidental strangulation, from the umbilical cord encircling the neck of the child while yet in the uterus. Instances

of this kind have doubtless occurred,* but they are rare, and can only happen when the cord is of an extraordinary length.† They can also be very easily distinguished from wilful strangulation after birth, by experiments upon the lungs. In the former, the child cannot have respired; and this will be indicated by the application of the various tests which have been pointed out. Besides this, there are other marks of discrimination. In the latter, there are perhaps the traces of fingers left on the neck in the form of ecchymoses, or an excoriation of the epidermis; while in the former, from the lubricity of the umbilical cord, this will not be found.

There is another accident sometimes occurring to the cord, which it is of consequence to recollect. It is the formation of *knots* in it, occasioned probably by the child passing through a coil of it during labour. Smellie relates an extraordinary instance of this kind.‡ A similar one fell under the notice of Dr. Hosack.¶ Now in cases of this kind, where the child was born dead, or died a short time after birth, ignorance might impute the existence of these knots to a criminal intention on the part of the mother. The method of detecting this, is similar to that in the former case. The length of the cord must be noticed, as they can only take place where it is very long; and experiments must be made upon the lungs to determine if the child was born alive.

When the child has been *smothered* under bed-clothes, &c. the circumstances upon which to form a decision, that wilful murder has been committed, besides those which characterize strangulation generally, are, the place where the body is found—the floating of the lungs—and the absence of any other probable cause to which its death can be attributed.

When respiration has been interrupted by *articles*

* Burns' Midwifery, p. 142, 3d ed.

† Burns says the usual length of the cord is two feet. p. 142.

‡ Smellie's Midwifery, vol. 2, p. 142. Burns' Midwifery, p. 142.

¶ New-York Med. and Phys. Journal, vol. 2, p. 20.

put into the mouth, nostrils, or throat, dissection can alone detect the cause.

The child may also have been suffocated by the turning back of the tongue upon the epiglottis. This can only be caused when there is some natural deficiency in the frænum of the tongue, or when it has been lacerated, either by the child itself in the act of sucking, or by the application of violence. If, therefore, a child has not sucked, and the frænum is found torn, it is just to conclude, that it must have been the effect of criminal interference.*

(d) *Luxation and fracture of the neck* has been caused by forcibly twisting the head of the child, or pulling it backwards.† In such cases, the vertebræ are fractured, the ligaments ruptured, and death is caused by the injury inflicted upon the spinal marrow. This will be known from the local derangements, and from the position of the head, and on dissection, from the blood found effused amongst the cervical muscles, or in the vertebral canal, and from the fracture of the first or second vertebra, or both.

(e) *Exposure to noxious airs.* This is a mode of destroying life which cannot be frequently resorted to. Women have been known, however, to destroy their offspring by exposing them to the fumes of sulphur. According to Alberti, this may be known, on dissection, from the livid appearance of the lungs.‡

(f) *Poisons.* These may be introduced into the system in various ways. They may be inhaled into the lungs, in the form of odours—or they may be taken into the stomach, mixed with food—or they may be received in the form of injections—or be absorbed through the skin.

When the poisonous substance has been taken into the stomach and intestines, it should be carefully examined, and subjected to the various tests which chemistry supplies for detecting its presence. In cas-

* Foderè, vol. 4, p. 495.

† Mahon, vol. 2, p. 409.

‡ Mahon, vol. 2, p. 412.

es where the cutaneous absorbents have been the medium of conveying it into the system, it may be very difficult, generally, to discover the cause of death. In some instances, an eruption on the skin, and the peculiar odour of the substance which has been employed, aided by the circumstantial evidence, may lead to a discovery.

Such are the various means resorted to, for the purpose of causing the death of a new-born child. It may be almost superfluous to suggest, that extreme caution is always necessary in making up a decision in a case of infanticide. A child sometimes expires in convulsions, a short time after birth, without any evident cause. At other times, its death may be occasioned by causes perfectly natural, and yet so far concealed from observation, as to create suspicions of violence having been inflicted. Introsusception is said to be common to children,* and of course can only be detected on dissection. The premature obliteration of the foramen ovale,† as well as its imperfect closure, may also, without doubt, sometimes occasion its death.

Having ascertained that the child was born alive, and that its death was owing to violence, we are next to inquire into the relations of the child with the supposed mother. As already stated, the questions here to be investigated are the following :

1. Has the woman been really pregnant? For the necessary information on this head, see chapter 6.
2. Has she been actually delivered? See chapter 7.
3. Does the pregnancy and delivery correspond as to time, &c. with the appearance of the child?

Circumstantial evidence. Although this does not strictly appertain to a medical discussion of this subject, yet there are some points embraced under it, concerning which the testimony of the physician may be required.

* Male's Medical Jurisprudence, p. 101.

† Mahon, vol. 2, p. 406.

1. It may be urged in excuse for a woman on a trial for child murder, that from the uncertainty of the signs of pregnancy, she might have been ignorant of her actual condition, and therefore might have been suddenly overtaken with the pains of labour, when it was out of her power to command assistance, and thus the child have lost its life. To all this, a very plain and concise reply may be made. However difficult it may be for a physician to say positively in all cases whether a woman is pregnant or not, yet we can scarcely suppose the woman herself to entertain any doubt on the subject. If she has yielded to the solicitations of a seducer, and if she afterwards experiences those changes and developements in her system, which accompany a state of impregnation, she cannot but be conscious of her true situation, and therefore any arguments drawn from this source ought to have no weight.

2. It may be suggested, in vindication of the woman, that the delivery was so rapid that it was out of her power to procure assistance, or make the necessary preparations for preserving the child's life. In cases of first pregnancy, it is not very probable that the labour would be so speedily accomplished. The necessary dilatation of the parts would require a length of time sufficient to give her proper warning of the impending event. In succeeding labours it is possible that it might occur. Dr. W. Hunter relates a case of this kind which happened in his own practice.* The physician should, therefore, always inquire if this be a first child, or if she has had others previously. Other circumstances relating to the delivery should also be investigated. It is not impossible that a woman may be delivered while standing, and the child have fallen upon the floor, and thus its death have been occasioned. Such cases are, however, extremely rare, and should be admitted with great caution.

* Observations on the uncertainty of the signs of murder in the case of bastard children.

4. *Of the method of conducting anatomical examinations in cases of infanticide.*

In every case of infanticide, so much depends upon the testimony furnished by the physician, that it becomes a sacred duty on his part to investigate with the utmost fidelity and impartiality, every circumstance which may aid him in coming to a satisfactory and enlightened decision. The labor of such investigation is doubtless great and unpleasant; but unless submitted to by the professional witness, he certainly cannot be considered as qualified to give his evidence in a case which involves the life of a fellow being.

External appearances of the child. These should first be minutely examined and recorded. The most important of them are the following:

1. The general shape and conformation of the child—whether it be natural or otherwise.
2. Its size—(see page 170 of this volume.)
3. Its weight—(see page 167 of this volume.)
4. All appearances of external violence.
5. Every indication of putrefaction—ascertaining, as far as possible, the extent to which it has proceeded.

6. Its colour. It has been proved by the observations of anatomists, that the fœtus in utero undergoes a succession of changes with regard to its colour. In the earlier months of pregnancy, the fœtus is pale-coloured. Afterwards, as the circulating system is developed, the skin assumes a bright red appearance, which is lost again as the fœtus approaches to maturity. If, therefore, the skin be found of a red colour, it is a proof that the fœtus, when born, had not reached the full period. It should not be forgotten, however, that an immature fœtus may have lost its natural redness from hæmorrhage, and also that a mature fœtus may become livid, in consequence of a difficult birth.

Dissection of the child. Having completed the external inspection of the child, it becomes necessary, in the next place, to make a careful and minute in-

vestigation of its internal condition. For this purpose, it will be found most convenient to commence the dissection with the mouth, and the cavities leading to the chest. An incision should first be made from the under lip to the top of the sternum, and another along the lower edge of the inferior maxillary bone; after which, the integuments are to be dissected back. The lower jaw is then to be divided at its symphysis, and the two portions separated. By bending the head back, we shall now be able to obtain a complete view of the cavity of the mouth. The position of the tongue should now be examined. If any foreign matters are found in the mouth, they should be especially observed and noted. In short, every unnatural appearance, whether morbid or artificial, should be carefully investigated and recorded.

The larynx and trachea must next be laid open. If any fluid is found, it should be recorded.

So much of the œsophagus as can be seen is also to be examined.

The abdomen is next to be examined. The first incision is to be continued down to the lower part of the sternum, and from this point, an incision made through the integuments to the spine of the ilium on each side. The triangular flap thus made, is then to be turned down, and the umbilical vessels be examined and tied. The diaphragm is to be observed, whether it be much arched towards the thorax or otherwise. The viscera of the abdomen are next to be inspected, and every thing peculiar in their appearance or condition to be noticed. The ductus venosus should be examined, whether it be pervious, and contain any blood. After tying the vessels leading to the liver, it should be taken out and weighed. The whole of the intestinal canal, with the stomach, should be taken out, after having tied the two ends. The contents of the stomach to be critically investigated. If there is any suspicion of poison, the ordinary tests for ascertaining it, should be resorted to. The state of the gall bladder and urinary bladder should be in-

quired into, whether they be empty or not. Lastly, it should be seen whether there be any meconium in the intestinal canal.

In opening the thorax, the ribs and sternum must be divided in the ordinary manner; and in doing this, a scissars will be found a much more safe and convenient instrument than a scalpel. Having exposed the thorax to view, the general appearance, position and colour of the lungs are to be remarked.

The trachea is now to be divided as near as possible to the lungs. The aorta and vena cava are to be tied and cut. The lungs should then be taken out and weighed, and after this, subjected to the experiments already detailed. (See page 249.) The heart is next to be examined, and it should be particularly noted whether the auricles and ventricles are filled with blood—whether the ductus arteriosus contains blood—and lastly, whether the foramen ovale be still open. As the death of an infant may not unfrequently be caused by injury inflicted on the spine, it becomes necessary to examine this part also. A longitudinal incision should be made from the occiput to the sacrum—the muscles to be separated and turned back. By means of strong scissars, the vertebræ are then to be divided on each side. The posterior part of the spine thus separated, may easily be removed, and the whole canal exposed for examination.

In opening the head an incision should be made from the lower part of the frontal bone down to the second or third cervical vertebra, and another at right angles to this from ear to ear. By dissecting back the integuments thus divided, the cranium will be completely exposed. The cranium should now be carefully examined, to see if there be any fractures, punctures, wounds, &c. The bones are next to be removed, and the most convenient method of doing this will be to separate them by a scissars along their membranous connection with each other. Great care should be taken not to occasion any laceration during the dissection.

The substance of the brain must be carefully investigated, and every deviation from the natural and healthy state observed. Although this examination of the brain can throw no light upon the question whether a child has been born alive, yet it may aid us materially in detecting the cause of its death.

Having completed the dissection, the inferences to be drawn from the information thus obtained, must be obvious. They have been so fully explained in the former part of this chapter as to render unnecessary any recapitulation.

5. *Of the prevention of infanticide, including a history of legislation on the subject, and an examination of the effects of foundling hospitals.*

Infanticide, which at one period prevailed so universally and without restraint among the most polished nations of the world, is now considered, in all enlightened countries, as a crime of the deepest dye. Mankind, on this subject, have vibrated from one extreme to the other, and it is not to be questioned, but that in the present day, many an innocent female is wantonly sacrificed to suspicion and prejudice. The *principle*, however, which now guides the moral judgment of society on this subject, is undoubtedly just, for it is a crime which presupposes the obliteration of those feelings which human nature ought to be most proud of, and which, if countenanced, or but slightly punished, would lead to the most dreadful consequences.

That a young female of character and reputable connexions, and possessed of tender sensibility, may have been betrayed by the arts of a base seducer, and when reduced to a state of pregnancy, to avoid the disgrace which must otherwise be her lot, may stifle the birth in the womb, or after it is born, in a state of phrenzy, imbrue her hands in her infant's blood, in the expectation of throwing the mantle of oblivion over her crime, is a case which too frequently occurs. But even such a case, with all its palliations, cannot

be considered as less than wilful murder, and as such demands exemplary punishment.

It is not, however, enough for a wise legislation merely to punish crimes after they are perpetrated : it should also adopt the most effectual means of preventing their commission altogether. In the language of a philosopher, it may be said, that “the punishment of a crime cannot be just, if the laws have not endeavoured to prevent that crime by the best means which times and circumstances would allow.”*

With regard to infanticide, it is impossible to suggest any method of arresting it completely, unless there be a total reformation of that corruption of manners which lies at the root of the evil. Next to this, the dread of severe punishment is the most effectual preventive. Foundling hospitals were also founded with this intent : whether they have this tendency, I shall consider presently, after having enumerated the laws enacted by different nations, for the purpose of preventing and punishing this crime.

Laws against criminal abortion. Although the Jewish code specified nothing relative to criminal abortion, or to the murder of the new-born infant, yet it decreed, that if a pregnant woman should be *accidentally* injured in a fray between two men, so that she proved abortive, without any injury to her own person, the punishment was a fine, such “as the judges might determine.” If the woman received any personal damage, the law of retaliation was then to operate—an eye for an eye, and a tooth for a tooth, &c. If she lost her life, death was the punishment.†

After the Romans began to consider the procuring of abortion as a crime, they denounced punishments against the authors of it. These, as has been already noticed when considering the animation of the foetus, varied with the changes that took place in the philosophical sentiments of the nation. In the year 692, a council, convened in the palace of the emperor at

* Beccaria's *Essay on Crimes and Punishments*, p. 104, New-York ed.

† Exodus, chap. 21, v. 22, 23.

Constantinople, ordained that it should be punished with the same severity as homicide.*

In *France*, the Roman law was adopted, and practised upon until the revolution. Their parliaments frequently condemned midwives to be hanged, for procuring the abortion of girls ; and physicians, surgeons, and others guilty of this crime, were subjected to the same punishment.† The French code of 1791, commuted the punishment to twenty years imprisonment in chains. The penal code of the empire, adopted by Napoleon in 1810, contains the following provisions against this crime : “ Every person who, by means of aliments, beverages, medicines, acts of violence, or by any other means, shall procure the untimely delivery of a pregnant woman, although with her consent, shall be sentenced to *confinement*, (reclusion.)”

“ The same punishment shall be inflicted upon the mother who shall make use of such means, if they are followed by abortion.”

“ Physicians, surgeons, apothecaries, and other officers of health, who shall prescribe or administer such means of abortion, shall, if a miscarriage ensue, be sentenced to hard labour for a limited time.‡

The criminal code of *Austria*, established in 1787, by Joseph II. in which the punishment of death is totally abolished, decrees, that “ a woman with child, using means to procure abortion, shall be punished with imprisonment for not less than fifteen, nor more than thirty years, and condemnation to the public works ; augmented, when married.”

“ Accomplices advising and recommending abortion—imprisonment not less than one month, nor more than five years, and condemnation to the public works. The punishment to be increased, when the accomplice is the father of the infant.”||

“ The laws of Germany punish with from two to

* Foderè, vol. 4, p. 383.

† Ibid. vol. 4, p. 384.

‡ Article 317. For a translation of the whole code, see Walsh's *American Review*, vol. 2.

|| Treatise on the Police of London, by P. Colquhoun, LL.D. 7th ed p. 656.

six years imprisonment a woman (or her aiders, &c.) who, by potions or other means, shall have wilfully produced abortion within the first thirty weeks from the time of conception ; and the penalty is protracted to eight, or at the utmost to ten years, when such a crime has been committed within the last month of pregnancy.

The laws of Bavaria enact similar measures.

In the Italian code it is established, that if a woman has used means with the intent to produce abortion, and this shall *not* have taken place, she is to be punished by imprisonment for a period of from six months to one year ; but if abortion has been the consequence of such means, the imprisonment is to be of from one to five years duration. The same penalties, but with exacerbations, are enacted against the father of the fœtus if he has been an accomplice in the crime. Finally, the delinquent who, against the will of the mother, shall have caused abortion, or have made an attempt to cause her abortion, is to be punished by from one to five years' severe imprisonment ; and if the life of the mother has thereby been brought into danger or her health injured, the duration of the penalty shall be from five to ten years."*

The English law is thus stated by Blackstone. "If a woman is quick with child, and, by a potion, or otherwise, killeth it in her womb, or if any one beat her, whereby the child dieth in her body, and she is delivered of a dead child, this, though not murder, was by the ancient law *homicide*, or man-slaughter. But the modern law doth not look upon this offence in quite so atrocious a light, but merely as a heinous misdemeanour."† "But if the child be born alive, and afterwards die in consequence of the potion or beating, it will be *murder*."‡ By a subsequent law, enacted in 1803, called the Ellenborough act, it was ordained, that "if any person shall wilfully and maliciously administer to, or cause to be administered

* London Med. and Phys. Journal, vol. 43, p. 96.

† Blackstone's Commentaries, vol. 1, p. 129.

‡ Ibid. Note by Christian.

to, or take any medicine, drug, or other substance or thing whatsoever, or use, or cause to be used or employed, any instrument, &c. with intent to procure the miscarriage of any woman, *not being*, or not being *proved* to be *quick* with child at the time of committing such thing, or using such means, then, and in every such case, the person so offending, their counselors, aiders, and abettors, shall be, and are declared guilty of felony, and shall be liable to be fined, imprisoned, set in and upon the pillory, publicly or privately whipped, or transported beyond the sea for any term not exceeding 14 years.* The same act ordains, that administering medicines, drugs, &c. with the intent to procure abortion *after quickening*, shall be punishable with death.†

The *Law of Scotland*, on this subject, appears to differ. Mr. Hume, in his *Commentaries on the Criminal Law of Scotland*, says, that all procuring of abortion, or destruction of future birth, whether quick or not, is excluded from the idea of murder, because, though it be quick, still it is only *pars viscerum matris*, and not a separate being of which it can with certainty be said, whether it would have become a quick birth or not. Since Mr. Hume wrote, a case

* Statutes at Large, 43, Geo. III. cap. 28. Male's Med. Juris. p. 114.

† There appears to be a strange deficiency in the English law against the procuring of abortion, *after a woman is quick* with child. The statute prescribes death as the punishment for administering any noxious or destructive substance, with an intent to destroy the child, and yet inflicts no punishment when the same is actually procured by mechanical violence. This defect of the statute was illustrated in a trial which took place in England, in 1808. One Pizzy, a farrier, and another person, (a female) were indicted for administering a noxious and destructive substance to one Ann Cheney, with intent to produce miscarriage. It was proved by the deposition of Cheney herself, that repeatedly during her pregnancy she had taken medicines from the accused without producing any effect, and finally, that a few days before her delivery, he took her up stairs alone, and introduced an instrument into her body. This was repeated, as the first attempt had not succeeded, and accordingly after the last one, she had never felt the child move. The jury, however, acquitted the prisoners, expressing themselves not fully satisfied with the evidence, to convict. On the trial, the counsel for the prisoner even objected to receiving that part of the evidence which related to his manual operations, as not relevant to the administration of the medicines, which alone constituted the capital crime; and the criminal was tried for giving medicine which had no effect, while the actual perpetration of the crime by mechanical violence, could only be noticed in court as proving the intention with which the medicines were given.—Edin. Med. and Surg. Journal, vol. 6, p. 244.

occurred in the High court of Justiciary, where the subject was discussed. A surgeon and midwife were indicted for the violent procuring of abortion, were convicted and sent to Botany Bay for fourteen years.*

In the state of *New-York*, there is no statute law, by which the procuring of abortion is declared a crime; and it is, therefore, only punishable according to the common law of England, which has been adopted in this country. Lord Ellenborough's act has, however, no force here, and therefore it can only be considered a misdemeanor, and the only punishments which our judges are enabled to inflict, are fine and imprisonment.

In the state of *Connecticut*, the law enacts, that for administering any noxious or destructive substance for the purpose of procuring the miscarriage of a woman quick with child, the punishment, on conviction, shall be imprisonment in Newgate prison during his or her natural life, or for such other term as the court having cognizance of the offence shall determine.†

Laws against the murder of the new-born infant. These, in almost all civilized countries, are capital. Previously to the fourth century, the edicts of the Roman emperors against this crime were partial and ineffectual; towards the latter part of that century, however, it was completely prohibited. The following is the article relating to it in the Cod. Justin. lib. viii. tit. 52. de infant. expositis, 1, 2: "Unusquisque sobolem suam nutriat. Quod si exponendam putaverit, animadversioni quæ constituta est, subjacebit."‡

The emperor Charles V. condemned the mother to death only in cases where it could be proved that the child had been born alive.||

In 1556, Henry II. of France, made a law condemning to death every woman convicted of having concealed her pregnancy, and put to death a bastard child. This law prevailed until the year 1791,§ when

* Edin. Med. and Surg. Journal, vol. 6, p. 249.

† Revised Laws of Connecticut, p. 152.

‡ Beckman, vol. 4, p. 437. || Foderè, vol. 4, p. 396. § Ib. p. 365.

every thing relating to the concealment of pregnancy was repealed, and death declared to be the punishment of the murder of the child.

The penal code of the French empire, enacted, that “every person guilty of assassination, parricide, *infanticide*, or poisoning, shall suffer death.”—Art. 302.

Other articles provide against the exposure and abandonment of infants. “Those who shall expose and abandon in a solitary place, a child under seven years of age, and those who may order it to be exposed, shall, on that account alone, if such order be executed, be imprisoned for a term not less than six months, and not more than two years, and fined from sixteen to two hundred francs.”—Art. 349.

And, “if, in consequence of such exposition or abandonment, the child shall be mutilated or crippled, the act shall be considered and punished as in the case of wounds voluntarily inflicted; and if the consequence be death, it shall be considered and punished as *murder*.”—Art. 351.*

The *Austrian law* provides, that “exposing a living infant, in order to abandon it to danger and death, or to leave its deliverance to chance, whether the infant so exposed suffers death or not, shall be punished by imprisonment for not less than eight, nor more than twelve years; to be increased under circumstances of aggravation.”†

In *Saxony*, infanticide is punished with the same severity as parricide; the culprit is put into a bag, with a dog, a cat, a cock, and a serpent, and then thrown into the water.‡

Although the *Chinese* have no law prohibiting the exposure of children, yet they inflict a slight punishment for the wanton murder of them. The following is the law on that subject: “If a father, mother, paternal grandfather or grandmother, chastises a disobedient child in a severe and uncustomary manner,

* American Review, vol. 2, p. 396.

† Colquhoun, p. 66.

‡ Specimen Juridicum, &c. p. 44.

so that he or she dies, the party so offending shall be punished with one hundred blows.”*

The *English law* on this subject has, within a few years, been materially changed.

By the Stat. 21, Jac. I. c. 27, it is enacted, that “if any woman be delivered of any issue of her body, which being born alive, should by the laws of this realm be a bastard ; and that she endeavour privately, either by drowning or secret burying thereof, or any other way, either by herself or the procuring of others, so to conceal the death thereof, as that it may not come to light whether it were born alive or not, but be concealed : in every such case, the said mother so offending shall suffer death as in the case of murder, except she can prove by one witness at the least, that the child whose death was by her so intended to be concealed, was born dead.”†

Upon this statute, Blackstone remarks, “This law, which savours pretty strongly of severity, in making the concealment of the death almost exclusive evidence of the child being murdered by the mother, is nevertheless to be also met with in the criminal codes of many other nations of Europe, as the *Danes*, the *Swedes*, and the *French*.”‡

This cruel law has since been mitigated. In 1803, an act was passed in that country, which decrees, that “women tried for the murder of bastard children, are to be tried by the same rules of evidence and presumption as by law are allowed to take place in other trials of murder : if *acquitted*, and it shall appear on evidence that the prisoner was delivered of a child, which by law would, if born alive, be *bastard*, and that she did, by secret burying or otherwise, endeavour to conceal the birth thereof, thereupon it shall be lawful for such court, before which such prisoner shall have been tried, to adjudge, that such person shall be

* La Tsing Leu Lee ; being the fundamental laws, and a selection from the supplementary statutes of the penal code of China, by Sir George Staunton, F.R.S. Quart. Rev. vol. 3, p. 312, 13.

† East's Crown Law, vol. 1, p. 223.

‡ Blackstone's Commentaries, vol. 4, p. 198.

committed to the common gaol, or house of correction, for any time not exceeding two years.”

In the state of *New-York*, we have no particular law concerning this crime, and as the English statutes are not in force, all trials for infanticide must of course be conducted according to the common law, and accessory circumstances can only be considered as proving the intent.

In *Massachusetts*, the mere concealment of a bastard child is punished with a fine not exceeding £50. For concealing the death, whether the child have been murdered or not, the mother is punished by being set on a gallows with a rope about her neck, for the space of one hour, and is further bound to her good behaviour at the discretion of the court. If convicted of the wilful murder of the infant, the crime is murder, and death the punishment.*

In *Vermont*, a law was passed in 1797, punishing with death the murder or concealment of a bastard, if it came to its death by the neglect, violence, or procurement of the mother. This has been repealed, and in the revised laws of that state it is enacted, that if a woman be privately delivered of a bastard, and it be found dead, and if there be presumptive evidence of neglect or violence on the part of the mother, the punishment shall be a fine not exceeding five hundred dollars, and imprisonment not over two years; one or both at the discretion of the court.†

In *Connecticut*, the law determines, that if a woman conceal her pregnancy, and be delivered secretly of a bastard, she shall be punished by a fine of not more than one hundred and fifty dollars, or imprisonment not over three months. For concealing the death of a bastard, so that it may not be known whether it was born alive or not, or whether it was murdered or not, she is set on a gallows with a rope about her neck, for one hour, and imprisoned for not more than one year.‡

* Laws of Massachusetts, 1807, vol. 1, p. 222.

† Laws of Vermont, 1808, vol. 1, p. 349.

‡ Revised Laws, 1821, p. 152.

In *New-Jersey*, the concealment of pregnancy, and delivery in secret, is considered a misdemeanour, and punished by fine and imprisonment. Concealing the death of the bastard, is also punished by fine and imprisonment at hard labour.*

In *New-Hampshire*, the concealment of the death of a bastard child, is made a crime, and the punishment directed is sitting on a gallows for one hour, and imprisonment for not more than two years, or in the place of the last, a fine not exceeding three hundred pounds.†

In *Pennsylvania* and *Rhode-Island*, the laws on this subject are very similar. The concealment of the death of a bastard child is punishable by imprisonment or fine, or both; and a proviso is contained in each, that the concealment of the death of such child shall not be conclusive evidence to convict the party indicted of the murder of her child, unless the circumstances attending it are such as shall satisfy the minds of the jury, that she did wilfully and maliciously take away the life of such child.‡

In *Delaware*, by a law passed in 1719, the concealment of the death of a bastard child is made a capital offence, except the mother can make proof by one witness at least, that the child whose death was by her so intended to be concealed, was born dead. This, however, was repealed, and I cannot find at present any statute on this subject in the code of that state.¶

Foundling hospitals. Foundling hospitals, by providing for the support of illegitimate children, are generally considered as a great means of preventing child-murder. The object of these institutions is no doubt commendable, but it is certain that they are not productive of that decided utility which is usually attributed to them. It is not to be denied that some good results from them, but it is by no means com-

* Revised Laws, 1921, p. 247.

† Laws of New-Hampshire, 1797, p. 269.

‡ Laws of Pennsylvania, 1803, vol. 5, p. 6. Laws of Rhode-Island, 1798, p. 597.

¶ Laws of Delaware, 1797, vol. 1, p. 67; vol. 2, p. 67Q.

mensurate with the abuses to which they give rise. That they encourage illicit commerce between the sexes—discountenance marriage—increase the number of illegitimate children, and consequently the number of exposures—are facts confirmed by the history of almost every foundling hospital that has been established. Mr. Malthus states facts of this kind with regard to the Foundling Hospital in St. Petersburg, (Russia.) “To have a child,” says he, “was considered as one of the most trifling faults a girl could commit. An English merchant at St. Petersburg told me, that a Russian girl living in his family, under a mistress who was considered as very strict, had sent six children to the Foundling Hospital, without the loss of her place.”* It is not necessary to enter into a laboured course of reasoning, to prove that the effects of these establishments are decidedly injurious to the moral character of a people. It is a position sufficiently self-evident, and as Malthus justly remarks, “an occasional child-murder, from false shame, is saved at a very high price, if it can only be done by the sacrifice of some of the best and most useful feelings of the human heart in a great part of the nation.”†

There is, however, another objection to Foundling Hospitals. The history of such establishments proves that they utterly fail of accomplishing their object, which is the preservation of the lives of children. The records of those which have been kept with the greatest care, exhibit the most astonishing mortality.

In Paris, in the year 1790, more than 23,000, and in 1800, about 62,000 children were brought in; and it is estimated, that eleven thirteenths of all the foundlings perish annually through hunger and neglect.‡ It is stated also, that vast numbers of the children die from a disease called *l'endurcissement du*

* Malthus on Population, vol. 1. p. 368, 9.

† Ibid. p. 370

‡ Beckman's History of Inventions, vol. 4, p. 456, 7.

tissue cellulaire, which is only to be met with in the Foundling Hospital.* Of 100 foundlings in the Foundling Hospital at Vienna, 54 died in the year 1789. Subsequent accounts of this hospital, do not represent it in a more favorable light. In a recent description of this institution, it is stated, that "all attempts to rear the children in the hospital itself had failed. In the most favorable years, only 30 children out of the 100 lived to the age of twelve months. In common years, 20 out of the 100 reached that age, and in bad years not even 10. In 1810, 2583 out of 2789 died. In 1811, 2519 out of 2847 died. Like the cavern of Taygetus, this hospital seemed to open its jaws for the destruction of the deserted and illegitimate progeny of Vienna. The emperor Joseph II. frequently visited this hospital in person, and upon one occasion he ordered Professor Boer to make a series of experiments with all kinds of food, that it might be ascertained how far diet had its share in the mortality. Twenty children were selected, and fed with various kinds of paps and soups, but in a few months most of them were dead."†

In consequence of this extraordinary mortality, "in 1813, the government enacted that the foundling-house should serve merely as a depot for the children, till they could be delivered to the care of nurses in different parts of the country."

In the hospital at Metz, calculation showed that seven-eighths of the whole number of children perished. In an institution of this kind in one of the German principalities, only one of the foundlings, in 20 years attained to manhood.‡

The Foundling Hospital of London, exhibits rather a more favourable picture. The average of those who died there under twelve months, in ten years, was only one in six, and for the last four or five years, even less in proportion.||

* Cross' Medical Sketches of Paris, p. 197.

† Quarterly Journal of Foreign Medicine and Surgery, No. 2, p. 183.

‡ Beckman on Inventions, vol. 4, p. 456, 7

|| Highmore's History of the public charities in and near London, p. 727.
Rees' Cyclopaedia, Art. Hospital.

The general fact is, however, sufficiently evident, that the lives of multitudes of children are sacrificed in these hospitals. The causes too are evident. In some instances, it arises from the want of nurses, or the mismanagement and cruelty of those that are employed ; in others, from the delicacy of the infant—the want of its mother's nourishment—the vitiation of the air—and the contagious diseases to which children are more peculiarly exposed.

But do foundling hospitals diminish the number of infanticides ? We have no evidence of such a result flowing from them. From the deleterious influence which they have upon the moral feelings of the female sex, we cannot believe that it is the case. And it is accordingly stated, that after the Foundling Institution of Cassel was established, not a year elapsed without some children being found murdered in that place or its vicinity.*

The following account of the deaths in the different foundling hospitals of Europe, will afford ample testimony in support of the opinion already advanced. It is taken from the *Edinburgh Med. and Surg. Journal*, vol. i. p. 321, 2.

“ In 1751, Sir John Blaquierc stated to the house of commons of Ireland, that of 19,420 infants admitted into the *Foundling Hospital of Dublin*, during the last ten years, 17,440 were dead or unaccounted for ; and that of 2180 admitted during 1790, only 187 were then alive. In 1797, he got a committee of the same house appointed, to inquire into the state and management of that institution. They gave in their report on the 8th of May, 1797 ; by which it appeared, that within the quarter, ending the 24th March last, 540 children were received into the hospital, of whom, in the same space of time, 450 died ; that, in the last quarter, the official report of the hospital stated the deaths at three, while the actual number was found to be 203 ; that from the 25th of March to the

* Beckman, vol. 4, p. 456.

13th of April, nineteen days, 116 infants were admitted; of which number, there died 112. Within the last six years, there were admitted 12,786; died in that time, 12,651; so that in six years, only 135 children were saved to the public and to the world.

In the *Charité of Berlin*, where some enjoyed the advantage of being born in the house, and of being suckled by their mothers six weeks, scarcely a fourth part survived one month.

Every child born in the *Hotel Dieu* of Paris, was seized with a kind of malignant apthæ, called *le muguet*, and not one survived who remained in the house.

At *Grenoble*, of every 100 received, 25 died the first year; at *Lyons*, 36; at *Rochelle*, 50; at *Munich*, 57; and at *Montpelier*, even 60. At *Cassel* only 10 out of 741 lived 14 years. In *Rouen*, one in 27 reached manhood, but half of these in so miserable a state, that of 108, only 2 could be added to the useful population. In *Vienna*, notwithstanding the princely income of the hospital, scarcely one in 19 is preserved. In *Petersburgh*, under the most admirable management and vigilant attention of the Empress Dowager, 1200 die annually out of 3650 received. In *Moscow*, with every possible advantage, out of 37,607 admitted in the course of 20 years, only 1020 were sent out."

CHAPTER IX.

LEGITIMACY.

1. Of the ordinary term of gestation—whether uniform or not. Variation observed among animals in the term of gestation. Causes which, it is supposed, may vary it in the human species—fallacy of these suppositions. 2. Premature delivery. Enquiry as to the period within which, a mature child should be deemed legitimate. 3. Protracted delivery. Remarkable cases of it, in ancient Rome, in France, and Germany. Cases which have given rise to medical controversy. 4. Laws of various countries on the subject of legitimacy—Roman, ancient French, Prussian, modern French, Scotch, and English laws—decisions under them. 5. Questions relating to paternity and filiation. Paternity of children where the widow marries immediately after the death of her husband. Cases that have occurred in the Roman courts—in the English courts. English law on this subject. Similitude and colour as evidences of paternity.

This title, under its various denominations, forms a subject of copious and extended discussion with writers on medical jurisprudence. I shall not imitate their example further, than to notice the reasonings they use, and to relate some of the cases they have adduced. The following division will be followed :

1. Of the ordinary term of gestation.
2. Of premature delivery.
3. Of protracted delivery.
4. Of the laws on the above subjects, and
5. Of some questions relating to paternity and filiation.

1. Of the ordinary term of gestation.

By the common consent of mankind, the ordinary term of gestation is considered to be ten lunar months, or forty weeks. This period has been adopted, because general observation, in cases which allowed of accurate calculation, has proved its correctness. It is not however denied, that differences of one or two weeks have occurred. Dr. William Hunter in answer to a question put to him on this subject, repli-

ed, "that the usual period is nine calendar months, (thirty nine weeks,) but there is very commonly a difference of one, two, or three weeks."* And it is impossible indeed in the nature of things, that this difference should not occur, since females usually calculate from the time when the menses disappear, and pregnancy may occur at any period between the interval.

In particular cases also, where the menstrual function is irregular, or disordered, the danger of mistake is increased, and undoubtedly, we may add to these, the variety that occurs in the period of quickening. This we have already shown to be uncertain, yet it is much relied upon by females, and considered a proper *æra*, from which a calculation may be dated.

It would thus appear that, notwithstanding these sources of error, the term of utero-gestation is very nearly uniform in all countries. There are, however, a class of physiologists who doubt this uniformity, and advance various arguments against it.

The first, and in my view the most important, is drawn from the variety observed in the gestation of animals. The ancients, it appears, were aware of this and have noticed it in their writings. But the individual who has paid the greatest attention to this subject, is M. Tessier. He has been forty years occupied with it, and kept a register of the facts. Out of one hundred and sixty cows, fourteen calved from eight months to eight months and twenty six days, three at 270 days, fifty from 270 to 280 days, sixty-eight from 280 to 290 days, twenty at 300 days, and five at 307 days.† The same variety was observed with mares, "the greatest difference among them is 132 days, and the prolongations of the period of gestation are more frequent among them than among

* Hargrave and Butler's Note 190* to sect. 183 of Coke upon Littleton.

† Foderè, vol. 2, p. 134. There is a misprint as to the last, which I am not able to correct, except by employing the context. It literally stands thus—"five at three hundred and eighty days, leaving a difference of sixty-seven days between the extremes." Cooper, (p. 227,) in his account of the same experiments, mentions that the greatest difference amounted to eighty-one days.

cows. Sheep carry their young five months. They do not vary more than eleven days, and the aberrations are on the side of premature births. This latitude diminishes in proportion as the periods of gestation in animals are shorter, but not exactly in that proportion. Bitches bear their young two months, and their limits of difference do not exceed four days. But rabbits which go with young but one month, have a latitude of eight days.”*

These facts certainly go to show that the period of gestation is irregular among animals, and should they be verified by succeeding observers, a strong argument from analogy will be furnished against its uniformity in the human race. It must, however, be recollected that, even if perfectly established, it is only a favourable and not a decisive proof.

But there are causes assigned, by which it is alleged, that the ordinary term of gestation may be varied.

Changes in the constitution of the atmosphere.—These, it is supposed, sometimes exert an important effect on the uterus. The authority of Hippocrates is cited, affirming that a warm winter, accompanied with rains and south winds, and succeeded by a cold and dry spring, causes abortions very readily in females who are to be delivered in the spring. Many physicians are said to have verified this observation in later times, and Fodere himself observes that at Martigues in 1806, after a warm winter, an epidemic catarrh broke out and all the pregnant women miscarried.

The constitution and habits of the females, it is believed, vary it. That part of the sex which reside in cities, and lead effeminate lives, are more liable to variations than others differently situated. The nervous system also may be so affected as to cause similar changes.

The womb may at one time be irritable and at other

* Cooper's Tracts, p. 227.

times passive, and in this way, the ordinary term will not prove constant.*

I will barely remark on these arguments, that experience has, and is constantly refuting them. There is not a practitioner in midwifery who has not within his own observation, met with cases sufficient to contradict the opinions just advanced.† It frequently occurs that females of the most irritable habits and effeminate course of life, proceed to the ordinary period—nay it almost universally is so—and although some may be delivered at the 37th or 38th week, yet if gestation be completed much sooner, the size of the child, or the dangers attendant on premature birth are generally sufficient to prove the nature of the case. As to the effect of epidemic constitutions, it will be observed, that this cannot with fairness be used as a general argument—nor indeed does it prove any thing more, than that the state of the weather may be such, as to predispose to abortion.

2. *Of premature delivery.*

The question which requires consideration under this section, is whether a child with all the characters of maturity, as we have described them in a previous chapter, can be born before the ordinary term of gestation? And its direct bearing is on the subject of legitimacy. A husband, for example, has been absent from his family, and at the end of seven or eight months after his return, a full grown, healthy child is produced. Is the honour of the female to be impeached, or shall we allow that this variation is possible?

There is an intrinsic difficulty connected with this question, which should lead us to be tender in forming our opinions, and this originates from the variety observed in children when born at the full time. They differ in size, general appearance, healthiness, &c. ;

* These arguments are taken from Foderè, one of the supporters of the doctrine of protracted gestation. Chap. 8, sec. 2.

† The fact that dead children and twins are born at the regular period, is certainly a strong proof of there being a fixed term of gestation.

and sometimes indeed we know, that eight month's children have been observed larger and healthier than those of nine months. The general appearance, then, should be noticed, but not too much relied on, in forming an unfavourable opinion.

It is an unquestionable fact, that there is in many females a disposition to expel the child before the ordinary term. This not only takes place at the 37th or 38th week, when we might suppose that the female had made a mistake in her calculation, but occurs as soon as the seventh month. LaMotte, in his Midwifery, mentions of two females, who always brought forth at seven months. Van Swieten says, he has observed similar cases, and Foderè relates of a female in the dutchy of Aost in the same situation.* It will not, however, be contended, that these are to be considered as indicating a healthy and regular state of the uterine function; but rather as a consequence of disease.

If the question be confined in the manner already stated, we may derive aid from the appearance of the child, and the condition of the mother. And although it may be deemed *barely* possible, that a child born at seven months may *occasionally* be of such a size as to be considered mature, yet I apprehend that the assertion is most frequently made by those whose character is in danger of being destroyed. If a mature child is born before seven full months after connection, it ought certainly to be considered illegitimate.†

3. *Of protracted delivery.*

It is astonishing, and I will add, ridiculous, to view the ardour with which writers have advocated

* Foderè, vol. 2, p. 128.

† This, however, I only give as my individual opinion. Valentini quotes a decision, (Pandects, vol. 1, p. 86,) which is very different. The husband had been absent a year, but returned home on the 14th of April, 1656; and on the succeeding 26th of September, his wife was delivered of a living child. The Medical Faculty of Leipsic decided that it was legitimate, because the mother had laboured under grief and terror during her pregnancy, and because, at her delivery, she was so weak as to need bathing with wine

this doctrine. I shall devote this section principally to a statement of some cases which have occurred at various times, and been made the subject of legal investigation.

One of the oldest cases on record is mentioned by Pliny, the naturalist. He states that the Prætor L. Papirius declared a child, born at thirteen months, legitimate, on the ground that there was no certain period for the completion of gestation. The emperor Adrian, at a subsequent period, as we are informed by Aulus Gellius, declared an infant legitimate which was born eleven months after the death of its father, on account of the unsuspected and undoubted virtue of the widow. A similar case is mentioned by Godefroy, in his notes on the novels of Justinian. A widow was delivered fourteen months after the death of her husband, and her issue pronounced legitimate by the parliament of Paris. It appeared that she had lived with the relatives of her husband, during the whole period of widowhood—that they had never observed any impropriety in her conduct—and they also testified to the deep and constant grief she had manifested for the loss of her partner. The parliament of Paris appears indeed to have adjudicated on numerous cases of protracted gestation. Foderè gives an abstract of twelve, which I copy to show the reasons assigned.*

* Foderè, vol. 2, p. 111 to 115. In 1578, a child born eleven months after the departure of the husband, was declared legitimate, because the husband might have returned during the interval.

In 1626, a child born eleven months after the death of the husband, was adjudged a bastard, on account of the bad character of the mother.

In 1653, a child born eleven months and three days after the death of the husband, was adjudged legitimate.

In 1632, a child born within four days of ten months after the death of the husband, was pronounced a bastard, on account of the character of the mother, and the constant ill health of the putative father.

In 1649, a child born at ten months and nine days, was judged legitimate, though the father had been absent and paralytic.

In 1656, a child born at sixteen months after the death of the husband, was declared a bastard.

In 1664, a child born eleven months after the absence of the husband, was adjudged legitimate, from the possibility that he might have had connection during the interval.

In 1695, a child at eleven months, declared legitimate, for the same reason.

Thomas Bartholin relates of a young girl at Leipsic, who, on accusing a person of having seduced her, was confined and strictly guarded. At the end of sixteen months, she brought forth a child, which lived two days.*

In 1638, a female brought forth a child one year and thirteen days after the death of her husband. She suffered with severe labour pains during the whole of the previous month, and the parietal bones of the infant, at birth, were found to be united—no fontanelle being present. It was also added, that she had always been irregular in her calculations with the seven children she had previously borne. The opinion of the Medical Faculty of Leipsic was required in this case. They replied, that extraordinary cases of protracted gestation, deserving of credit, were related by many authors; that there might be a frigidity of the genital organs, so as to cause a slow increase of the fœtus; and that the long continuance of the labour pains proved this to be a præternatural case. They therefore decided that the offspring was legitimate.†

In another instance, a man named Gaus, after being deemed *in extremis* for eight days, died on the 2d of December, 1687; and on the 25th of the succeeding October, his wife was delivered of a son. The brothers and sisters of the deceased contested its

In 1705, in the case of a child born twelve months and six days after the disappearance of the husband, an interlocutory judgment was pronounced, as some asserted that he was dead, while the female asserted that she saw him nine months previous to delivery.

In 1756, a child born within six days of a year after the death of the husband, declared a bastard. So also with one born at eleven months and seven days.

In December, 1779, a child born at eleven months and one day after the husband's death, was pronounced legitimate, on account of the irreproachable conduct of the mother.

* Foderè, vol. 2, p. 183.

† Valentini's Pandects, vol. 1, p. 142. In another case, where the child was born eleven months after the death of the husband, the Medical Faculty of Leipsic, on the 2d of April, 1630, declared it illegitimate, because it was born beyond the time assigned by Hippocrates. (Ibid. vol. 1, p. 140.) Amman, who reports these cases, observes, that he cannot reconcile the conflicting decisions, except by saying, that the first of these children would become very rich by the decision, while the other was poor.

legitimacy, and an appeal was made to the Medical Faculty of Giessen. They commence their answer also, by stating extraordinary cases as mentioned by authors, and in this instance decided in favour of its being the child of Gans, because he was weak and feeble at the period of conception, and the mother was of a *frigid complexion*; the fœtus, therefore, would require a longer period to come to maturity.*

There are also some cases which deserve notice, from the medical controversies to which they have given origin. I shall particularly mention two that occurred in France.

Le Sueur, a resident of the city of Caudebec in Normandy, was struck with apoplexy on the 14th of May, 1771, and died on the 16th. His wife, Maria Rose, had not been pregnant during the six years of their marriage. On the 11th of the succeeding September, she declared herself pregnant; and on the 17th of April, 1772, (eleven months and one day after his death, and eleven months and four days after his illness,) she was delivered of a son. The relatives of the husband contested its legitimacy, and obtained a decree in their favour; but on appealing to the parliament of Rouen, the cause was in December 1779, decided in favour of the widow. Her claim was defended on the score of character, and on the possibility of protracted gestation. The former seemed to be most unexceptionable, at least the public opinion was strongly in her favour, and the latter was supported by many extraordinary narratives. The work of the celebrated Petit on this subject was quoted, in which he states that many faculties of medicine, forty-seven celebrated authors, and twenty-three French physicians and surgeons, agree in believing that delivery may be delayed to the eleventh and twelfth month; nay, that it is perfectly demonstrated that this frequently occurs.

Among the quotations from the work of Petit, is

* Valentini's Pandects, vol. 1, p. 144.

the following case related by Heister. A female, the wife of a bookseller, in Wolfenbuttel, was delivered thirteen months after the death of her husband. The individuals interested, proposed to contest the legitimacy of the infant, but were deterred on account of her excellent character. So convinced was one Christopher Misnerus, who had acted as shopkeeper during her widowhood, of her virtue and probity, that he married her shortly after, and had two children by her, and each of them were born after a gestation of thirteen months.*

Tracy, a naval physician, deposed in this case, that he knew a female who was delivered at the end of fourteen months. She was in delicate health, and both she and her husband informed him, that there had been no connection since the commencement of her pregnancy.

Dulignac, *chirurgien major* to the regiment of Asfeld, testified, that with three children which his wife had produced, the term in two had been thirteen and a half months, and in the third, eleven months, and that he had recognized the existence of each of the pregnancies at four months and a half, by the most infallible sign—the motion of the child.

Lepecq de La Cloture also gave an opinion in favour of the widow, and quoted similar cases from his own observation. This author dwelt much upon the inertness which grief produces on the uterine organs, and conceived that the languor which sorrow causes, may retard the progress of gestation.†

The last case which I shall notice, is one that enlisted all the medical talent of France in its discussion. Charles ——— aged upwards of seventy-two years, married Renée, aged about 30 years, at the commencement of the year 1759. They were married nearly four years without having any issue. On the 7th of October, 1762, he was taken ill with fever

* This case is related at length, with all its proofs, in Schlegel, vol. 2, p. 99 to 113—Wagner's Dissertation.

† Foderè, vol. 2, p. 185 to 189—quoted from the *Causes Célèbres*

and violent oppression, which remained until his death. The last symptom was so severe, that he was forced to sit in his bed, nor could he move without assistance. In addition to these, he was seized with a dry gangrene of the leg on the 21st, and with this accumulation of disease, he gradually sunk, and died on the 17th of November, aged 76 years. Renée had not slept in the chamber during his illness; but about three and a half months after his death, she suggested that she was pregnant, and on the 3d of October, 1763, (within four days of a year since the illness of her husband, and ten months and seventeen days after his death,) she was delivered of a healthy, well formed, and full sized child. The opinion of Louis was asked on this case, and he declared that the offspring was illegitimate. Had he rested at this, even the advocates of protracted gestation might probably not have murmured, as the circumstances were rather too powerful for the interposition of their favorite doctrines. But he took occasion, in his consultation, to attack the opinion generally, and to deny the possibility of the occurrence of such cases. Among the arguments which he adduces, are the following: that the laws of nature on this subject are immutable—that the fœtus, at a fixed period, has received all the nourishment of which it is susceptible from the mother, and becomes, as it were, a foreign body—that married females are very liable to error in their calculations—that the decision of tribunals in favour of protracted gestation, cannot overturn a physical law—and finally, that the virtue of females in these cases, is a very uncertain guide for legal decisions. “If we admit,” says he, “all the facts reported by ancient and modern authors, of delivery from eleven to twenty-three months, it will be very commodious for females, and if so great a latitude is allowed for the production of posthumous heirs, the collateral ones may in all cases abandon their hopes, unless sterility be actually present.”*

* Louis' Memoire contre legitimité des naissances pretendues tardives.

This reasoning appears to me to carry great weight, and Mahon, in his chapter on this subject, adds several sensible remarks in confirmation of it. He observes, that if the doctrine be true, that the children of old people are longer in coming to maturity, it would have been confirmed by experience, which it is not. Grief also, and the depressing passions, are much relied upon as possessing a delaying power, but certainly these are more apt to produce abortion, than protracted gestation. He accounts for the mistakes of married women, by suggesting that the menses may be suppressed, not only from disease, but from affections of the mind, or accidental causes, which do not immediately impair the health, while the increase of volume in the abdomen may originate from this, or from numerous other causes. Towards the conclusion of his remarks, he states a difficulty, which, I believe, cannot be readily overcome. If the doctrine be allowed, how shall we distinguish a delayed child from one that is born at nine months; and by what means are we to detect fraud in such cases? Certainly, as far as we can judge from the narratives given, the infants born after protracted gestation, were not distinguished for size, or other appearances of maturity.*

A calm and deliberate examination of these histories, must certainly, I think, lead to a total disbelief of the doctrine of protracted gestation. There are many that evidently bear the impress of vice, while the most favourable are so liable to have arisen in error, that scepticism must appear unavoidable.† That a limited variation may, from extraordinary circumstances, sometimes occur, I shall allow so far, as to believe it proper that legislation should make allowances for it.

Le Bas attacked this memoir, and Louis replied in a supplement. Several other physicians, I believe, took part in the controversy.

* Mahon, vol. 1, p. 183, 185, 198, 203.

† I have not by any means exhausted the cases on record, of protracted gestation. Those who wish to examine them further, are referred to Fodère, Metzger, Louis, Valentini, Schurigius—together with Schnobel's Dissertation in Schlegel, vol. 4, p. 232. A long list of believers and disbelievers in the doctrine, may also be found in these writers.

The best and most accurate observers have sometimes met with cases, where the period *seemed* to be somewhat prolonged, but I will venture to add, that the more closely they are investigated, the less will the number appear. Dr. Smellie mentions two instances in which the females exceeded their reckoning by eight weeks, and Dr. Bartley confirms them by a similar case in his own practice.* All these, however, were calculated from the cessation of the menses; and is it not possible that some peculiar circumstances might have caused this, particularly as it was the first pregnancy in two of them? Dr. Hunter, in answer to a question on this subject, observed that he had *known* a woman bear a living child in a perfectly natural way, fourteen days later than nine calendar months, and *believed* two women to have been delivered of children alive, in a natural way, above ten calendar months from the hour of conception.†

I will add, that in England, and certainly in America, cases of protracted gestation are rarely heard of. They appear to have occurred in countries where the administration of justice was arbitrary, or at least fickle and unsteady.‡

4. *Of the laws of various countries on the subject of legitimacy.*

Although the decisions on this subject have occasionally been very extraordinary and loose, yet considerable uniformity exists in the laws of various countries.

The Roman law did not consider an infant legiti-

* Bartley, sect. 3.

† Hargrave's note, as already quoted.

‡ I recommend to those who intend embracing the doctrine of protracted gestation, an examination of the following case. If they can satisfy their minds respecting it, all difficulties on this subject will vanish. The husband had been absent four years, at the end of which period the wife brought forth a child. She pleaded that her conception had taken place through the force of the imagination alone—"ut mulier per sortem imaginationem putaverit, se in insomniis rem habuisse cum marito, atque sic concepisse." The parliament of Grenoble, to whom this case was referred, declared the offspring legitimate. Metzger, p. 416. Schlegel, vol. 2, p. 148.

mate which was born later than ten months after the death of the father or the dissolution of the marriage.* Such was also the French law prior to the revolution.

A case is said to have been decided by a majority of the judges of the supreme court of Friesland, by which a child was admitted to the succession, though not born till three hundred and thirty three days from the day of the husband's death, which period wants only three days of *twelve lunar months*.† The Prussian civil code declares that an infant born three hundred and two days after the death of the husband, shall be considered legitimate, and a case has occurred, where one born three hundred and forty-three days after the death of the husband, was adjudged a bastard by the *legislative commission* of that country.‡

The civil code now in force in France contains the following provisions. The child born in wedlock, has the husband for its father. He may however disavow it, if he can prove, that from the three hundredth to the one hundred and eightieth day before its birth, he was prevented, either by absence, or some physical impossibility, from cohabiting with his wife. An infant born before one hundred and eighty days after marriage, cannot be disavowed by him in the following cases. 1. When he had a knowledge of his wife's pregnancy before marriage. 2. When he assisted at the act of birth, and signed a declaration of it. 3. When the infant is declared not capable of living. Lastly, the legitimacy of an infant born three hundred days after the dissolution of marriage, may be contested.§

It will be observed, that by the last section, the child born after three hundred days, is not positively declared a bastard, but *its legitimacy may be contested*. And Capuron in remarking on this, observes, that it would probably be deemed legitimate, if no legal in-

* Foderè, vol. 2, p. 111.

† Hargrave ut antea.

‡ Metzger, p. 427, 429.

§ Code civil, sects. 312, 314, 315—quoted by Capuron and Foderè.

vestigation should take place.* The language of this law is also so put, that in a contested case, all the learning of former times and the innumerable cases related by medical jurists, might be brought forth to prove that eleven and twelve months are possible and even probable.† I confess, that I prefer the Scotch law, because it prevents this. It is concise and decisive. “To fix bastardy on a child, the husband’s absence must continue till within six lunar months of

* Page 231.

† The remark made in the text, is amply verified by a case contained in the *Causes Célèbres* of Mejan. As it occurred but a few years since, I shall present a sketch of its leading particulars.

Catherine Berard was married on the 25th of July, 1806, to Francois Chapellet, who, about six months after, was seized with a pleurisy, and languishing with it about eight days, died on the 20th of January, 1807. On the 3d of December of the same year, and three hundred and sixteen days after his death, she was delivered of a child, of which she declared the deceased Chapellet the father. An application was made to the court at Chambéry for the property to which this birth entitled her, and it was resisted by the relatives of the husband, on the ground of illegitimacy. She pleaded their cruel usage during her widowhood, the state of poverty and sorrow to which she was reduced by their treatment, and the fact, that at the expiration of nine months, she had experienced labour pains, which continued until the middle of the tenth—as explanatory of this protracted gestation. The court, after quoting the article in question from the Napoleon code, argued that it gave the child a *provisionary* legitimacy, until the contrary was proved by concurring facts and circumstances. They further observed that the term of gestation in this case, did not exceed that allowed by many celebrated physicians, as possible; and remarked that the widow must have been in a state of sorrow and languor, in consequence of the treatment of her relatives, and thus the increase of the fœtus was probably retarded. Accordingly, on the 14th April, 1808, a decree was pronounced, declaring the child legitimate. An appeal was taken from it from the the court of appeals at Grenoble. M. Métrol, the advocate for the mother, advanced in his pleadings most of the arguments which we have already noticed,—such as the variety in the period of gestation, quoted numerous cases from medical authors, and urged the decisions of the French courts as precedents in the present instance. The modesty and good conduct of the mother was not forgotten, nor the fact, that she had experienced labour pains at the end of nine months. The court in their *arrêt textuel*, observe, that as the 315th article of the Napoleon code, declares, that the legitimacy of the child born three hundred days after the dissolution of marriage may be contested; it by implication destroys its claim in a disputed case, and affixes a term beyond which, gestations are to be deemed illegitimate. Again, the 228th and 296th articles of the same code forbid a widow or divorced female to marry, until ten months after the dissolution of marriage. Here again the term of three hundred days appears to be pointed out as the most extensive period allowed to pregnancy. The father also, by the 312th article, is permitted to disavow the child, if he proves a physical impossibility of cohabiting with his wife for ten months previous. The court contend, that the contesting of the legitimacy on the part of the relatives, is equivalent to a disavowal on the part of the putative father, and conclude with remarking, that any extension beyond the term of three hundred days, must prove dangerous to morals, and the repose of families. They therefore de-

the birth. And a child born after the tenth month, is accounted a bastard.”*

The English law, on which our own is founded, does not prescribe a precise time. There are however some decisions, which will show the ordinary course of adjudication. In the eighteenth year of Edward the first, Beatrice, the wife of Robert Radwell, was delivered of a son, eleven days after forty weeks. The husband had been seriously ill, and had no access to his wife for one month before his death. The child *was presumed* to be a bastard, and judgment was given accordingly. Gilbert De Clare, earl of Gloucester, died on the 30th of June of the 7th of Edward the second, and on the 29th January of the 9th year (within one day of a year and seven months) his sisters and co-heirs prayed livery. The countess pled that she was big with the earl, which was accordingly found *per inquisitionem*. The question hung in deliberation, nor did they obtain livery till the 10th of Edward. In another case, during the 18th year of Richard II. Andrews, the husband died of the plague. His wife, who was a lewd woman, was delivered of a child forty weeks and ten days after the death of the husband. Yet the child was adjudged legitimate and heir to Andrews, for *partus potest protrahi* ten days *ex accidente*.†

clared the child in question illegitimate. Causes Célèbres, par Maurice Mejan, vol. 6, p. 93 to 120. The editor is not satisfied with the reasoning of the court, and insists greatly on the effects which grief may produce in protracting pregnancy.

* Erskine's institutes of the law of Scotland, quoted in the Edin. Med. and Surg. Journal, vol. 1, p. 334.

† These cases are taken from Hargrave's and Butler's notes on Coke upon Littleton. Note 190, on sect. 188. There is a more full report of the case of Andrews in Croke Jac. p. 541. It is stated that “the husband's father abused her, and caused her to lie in the streets; and three physicians (two of them doctors of physic,) made out that the child came in time convenient to be the child of the dead party, and that it is usual for a woman to go nine months and ten days, i. e. solar months at 30 days, and not lunar months. And that by reason of want of strength in the woman or child, or from ill usage, she might be a longer time, viz. to the end of ten days or more. And the physicians further affirmed, that a perfect birth may be at seven months.” I have also met with a comparatively recent case, which does not appear to have been noticed. It is contained in Brown's Chancery Cases, vol. 3, p. 349. *Foster and others v. Cook*. Henry Cook died on the 14th of January, 1780; and on the 9th of Nov. 1780 following, (forty-

Messrs. Hargrave and Butler, in commenting on the above cases observe, that “ these precedents, so far from corroborating Lork Coke’s limitation of the *ultimum tempus pariendo* (forty weeks) do, upon the whole, rather tend to shew, that it hath been the practice in our courts to consider forty weeks merely as the more *usual* time, and consequently not to decline exercising a discretion of allowing a longer space, where the opinion of physicians or the circumstances of the case have so required.”* If then a contested case should ever arise in our courts, the opinion of any and every medical man may be brought forward, in order to decide on it. I doubt whether this is calculated to subserve the ends of justice, and should certainly advise that a positive time be fixed by statute in all countries, beyond which children should be deemed illegitimate. In the instance of posthumous children, this term should be narrowed down as much as possible, for husbands have not often the power of procreation for some time before their death, unless it has been sudden and accidental. It is evident then, that a calculation, commenced from the day of their death, must lead to the encouragement of vicious practices, and the injury of legal heirs. A more clement rule might be allowable in cases of absence, for obvious reasons ; but in all, I beg leave to propose, that the law, or (if not the law) at least the practice under it, should declare a child born naturally forty three weeks, after death or absence, illegitimate.†

5. *Of some questions relating to paternity and filiation.*

These form a proper supplement to the present chapter, from their connection with its leading subject.

three weeks except one day,) his widow was delivered of a son. A trial was held, and the verdict was in favour of the legitimacy of the offspring.

* Blackstone, however, intimates, that a child born after forty weeks is illegitimate. Vol. 1, p. 456. He cites Britton for this ; but the co-editors remark, that even this writer seems to extend in some degree beyond forty weeks.

† I choose this term, because it goes as far as the French code, and the belief of Dr. Hunter, although I am free to declare that the term of forty weeks, particularly after the death of the husband, is more consonant to my ideas of right.

It might be supposed that common decency, as well as a proper respect for the opinions of mankind, would prevent those sudden marriages which sometimes take place immediately after the death of a former husband. There have, however, been females in all countries, who have disregarded these restraints, and united themselves to a second partner before the "first brief week of mourning is expired." Besides the injury that such cases produce on the public manners, there is a difficulty which may arise in a legal view. *She may be delivered of a child at the expiration of ten months from the death of the first husband;* and the question then occurs as to the paternity of the infant.

The Romans endeavoured to prevent this, by forbidding the widow to marry until after the expiration of ten months; and this term was prolonged by the emperors Gratian and Valentinian, to twelve. This law has been imitated in the present French code, which also forbids the marriage before ten full months have elapsed since the dissolution of the previous one.*

But if these laws are transgressed, or if there be no laws (as in England and our own country) against such precipitate connexions, whom shall we declare to be the father of the child? I will answer this, by citing some cases, and then mentioning the laws in force respecting it.

About the period when the plague broke out in Naples, one Antoine, aged forty, married Jeronime, a young lady, and on the second day after, died of that fatal disease. Aniello, a relative and intimate friend of the widow, having obtained the necessary dispensation, married her immediately afterwards. She was delivered of a child two hundred and seventy-three days after the consummation of the marriage

* Foderè, vol. 2, p. 205. "The same constitution," says Blackstone, "was probably handed down to our early ancestors from the Romans, during their stay in this island, for we find it established under the Saxon and Danish governments. *Sit omnis vidua sine marito duodecim menses.* Blackstone, vol 1, p. 457. It was the law before the Conquest.

with Antoine, and two hundred and sixty eight after her union with Aniello—being in the one case, thirty-nine weeks, and in the other, thirty-eight. The question, *who was the father of this child?* was put to Zacchias.

In order to solve the difficulty, he canvassed the condition of the two husbands, the mother, and the child. Antoine, he observes, was of a feeble constitution, and his marriage was a forced one, and contrary to the wishes of the female, who was attached to Aniello. The latter was strong and robust. The wife stated that the consummation of the first marriage was attended with a discharge of blood, which she attributed to menstruation—that in the interval of her widowhood, it had slightly returned, but never after the second marriage. Now, from this, it might be supposed, that as menstruation had not returned regularly since the first marriage, the pregnancy was caused by Antoine. Zacchias, however, supposes that the sanguineous discharge was the consequence of defloration, and that as she received the advances of her first husband with disgust, the suppression might arise from mental uneasiness. He attaches no importance to the fact, that if the child was the son of the second husband, the period of pregnancy would fall short of nine months, and thinks it sufficiently counterbalanced by the youth of the parties. He therefore decided, that it was the child of Aniello.*

In another case, a widow married shortly after the husband's death, and in the fifth month of her second marriage, was delivered of a son who survived. He was baptised by the name of the second husband, and when he arrived of age, claimed to be acknowledged as his son, and to be supported accordingly. The tribunal of the Rota, after taking the advice of physicians and lawyers on the subject, decided that he was not the offspring of the second marriage, on the ground

* Zacchias. Consilium, No. 73. See also No. 75, for a somewhat similar case

that a five months birth was not *viable*, or could not have survived.*

There are also some English cases on record. In the 18th of Richard the second, a woman immediately after the death of the first husband, took a second, and had issue born forty weeks and eleven days after the death of the first husband. It was held to be the issue of the second husband. In another instance, "Thecar marries a lewd woman, but she doth not cohabit with him, and is suspected of incontinency with Duncomb. Thecar dies—Duncomb within three weeks of his death marries her, and two hundred and eighty-one days and sixteen hours after his death, she is delivered of a son. Here it was agreed, 1. If she had not married Duncomb, without question the issue should not be a bastard, but should be adjudged the son of Thecar. 2. No averment shall be received that Thecar did not cohabit with his wife. 3. Though it is possible, that the son might be begotten after the husband's death, yet being a question of fact, it was tried by a jury, and the son was found to be the issue of Thecar."†

The English law on this subject is thus explained by Blackstone and Coke. "If a man dies and his widow soon after marries again, and a child is born within such a time, as that by the course of nature it might have been the child of either husband, in this case, he is said to be more than ordinarily legitimate, for he may, when he arrives at years of discretion, choose which of the fathers he pleases."‡

It has also been suggested that the resemblance of the child to the supposed father might aid in deciding these doubtful cases.§ This however is a very uncer-

* Zacchias. Decisiones Sacræ Rotæ Romanæ, No. 45.

† Hargrave's notes, *ut antea*. See also Croke Jac. p. 686, for an account of the same case.

‡ Blackstone, vol. 1, p. 456. Hargrave, as already quoted, and also in note 7 to fol. 8. *a*, intimates a doubt respecting the above doctrine, and suggests that one of the cases quoted would lead to the opinion, that "*the circumstances of the case, instead of the choice of the issue, should determine who is the father.*" This certainly would seem to be the most correct mode of adjudicating.

§ See Zacchias, vol. 1, p. 146; and Valentini's Pandects, vol. 1, p. 148 *De Similitudine Natorum cum Parentibus*.

tain source of reliance. We daily observe the most striking difference in physical traits between the parent and child, while individuals, born in different quarters of the globe, have been mistaken for each other. And even as to malconformations, although some most remarkable resemblances in this respect have been noticed between father and child, yet we should act unwisely in relying too much on them. There is however a circumstance connected with this, which when present should certainly defeat the presumption that the husband or the paramour is the father of the child, and that is "when the appearance of the child evidently proves that its father must have been of a different race from the husband (or paramour) as when a mulatto is born of a white woman, whose husband is also white, or of a black woman, whose husband is a negro."* It was on this principle that a curious case was decided in New-York some years since.

Lucy Williams, a mulatto woman, was delivered on the 23d of January 1807, of a female bastard child, which became a public charge. On examination according to our laws, she stated that Alexander Whistelo, a black man, was the father of it, and he was accordingly apprehended, for the purpose of obtaining from him the necessary indemnity for its expenses. Several physicians were summoned before the police justices, who gave it as their opinion, that it was not his child, but the offspring of a white man. Dr. Mitchill however thought it possible, nay probable that Whistelo was the father. In consequence of this diversity of opinion, the case was brought up for trial before the mayor, recorder and several aldermen, on the 18th of August, 1808. It appeared in evidence that the colour of the child was somewhat dark, but lighter than the generality of mulattoes, and that its hair was straight, and had none of the peculiarities of the negro race. Many of the most eminent members

* Edin. Med. and Surg. Journal, vol. 1. p. 335

of the medical profession were examined, and they all, with the exception of Dr. Mitchill, declared that its appearance contradicted the idea that it was the child of a black man. Dr. Mitchill, for various reasons (for which I refer to the account of the trial) placed great faith in the oath of the female, and persisted in his belief of its paternity, although he allowed that its appearance was an anomaly. The mayor, (the Hon. De Witt Clinton) and the court decided in favour of Whistelo.*

CHAPTER X.

PRESUMPTION OF SURVIVORSHIP.

1. Of the survivorship of the mother or child, when both die during delivery. Cases that have been decided in Germany—in France—in the state of New-York.
2. Of the presumption of survivorship of persons of different ages destroyed by a common accident. Laws on this subject. Roman—Ancient French—Napoleon code—English. Cases that have occurred under each. Propriety of having fixed laws on this subject.

This interesting as well as intricate question has frequently been the subject of legal inquiry. It is agitated, when two or more individuals have died within a very short period of each other, and no witnesses have been present to notice the exact instant of dissolution. Accidents also, such as fire, or a shipwreck, may destroy persons, and the disposition of

* See a pamphlet, entitled, "The Commissioners of the Alms-House v. Alexander Whistelo, a black man, being a remarkable case of bastardy, tried and adjudged by the mayor, recorder, and several aldermen of the city of New-York, &c." New-York, 1808. The main scope of Dr. Mitchill's argument appears to have been, that as alteration of complexion has occasionally been noticed in the human subject, (as of negroes turning partially white) and in animals, so this might be a parallel instance. He would also seem to be a believer in the influence of the imagination over the fœtus.

their property will depend on ascertaining the survivorship of the one or the other. It is not to be supposed that medical science can solve the difficulty, but it may in these extreme instances, where no aid can be derived from facts, assist in laying down certain principles. I shall endeavour to suggest some of these, while relating such cases, as I have been enabled to obtain. They may serve as a guide for future investigations.

The subject will be advantageously considered, 1. As to the survivorship of the mother or child, when both die during delivery, and 2. As to the survivorship of persons of different ages, destroyed by a common accident. This last may seem to include the first, but the distinction which I wish to make, will be readily understood.

1. *Of the presumption of survivorship of mother or child, when both die during delivery.*

The Imperial Chamber of Weztlar were consulted at the conclusion of the seventeenth century, concerning the case of a mother and child, who, some years previous, had both died during delivery. There were no facts on which an opinion could be founded, and the naked question was presented. They decided, for *physical reasons*, that the mother had died first. And the commentator in noticing this case, remarks, that undoubtedly these physical reasons were, 1. that the mother was exhausted by the labour, and 2. that the infant would not have died, until deprived, by the death of the mother, of its nourishment.*

It is questioned by medical jurists, whether this decision is correct, and there are certainly many reasons to be assigned why the presumption should be against the child. Its life may be early endangered by a dif-

* Valentini's Pandects, vol. 1, p. 3 and 11. The statement given of this case by Foderè, and after him by Capuron, is not correct. The chamber assign no reasons except "*causis physicis*," and it is the editor who explains them. There is evidently a mistake in the references to Valentini by Foderè, (vol. 2, p. 96 ;) and it is of such a nature, that one might be led to suspect that he had not minutely examined the Pandects.

ficult or slow delivery. There may be a pressure on the umbilical cord, or the placenta may be partially detached, and its death ensue during the consequent hæmorrhage. If the parturition be complicated with convulsions, the probability certainly is, that the infant will first die. So also if it be very large, or if it be prematurely born. The only exceptions which have been suggested in favour of the survivorship of the child, are the following—when the mother is delivered of twins, she may bring forth the first and die before the second is born—and again when she is laboring under an acute disease. We know that the offspring is sometimes healthy, although the mother sinks during the delivery.*

A due comparison of these arguments, I imagine will lead to the opinion, that the presumption of survivorship is with the mother; for I will again mention, that in these cases, no person is supposed to have been present to witness the death of the parties, and such a length of time has also elapsed, that all examination as well as inquiry into facts is precluded.

A case that occurred to Pelletan may be mentioned in this place, although the consideration of it partly belongs to a previous chapter (*on the life of the infant.*)

A female at the eighth month of pregnancy died of a disease, which the physicians styled anasarca complicated with scurvy, (*anasarque compliquée de scorbut.*) A surgeon immediately performed the cæsarean operation, and extracted the child. In his *proces verbal* he states, that after tying the umbilical cord, and removing the mucus from its mouth, he observed pulsations at the region of the heart, and also found that it preserved a sufficient degree of warmth. It expired however, (he adds,) three quarters of an hour after the decease of its mother. Six witnesses were also present at the operation, four of whom stated that they applied their hands to the breast and felt the pulsation. The other two had not observed it.

* Foderè, vol. 2, p. 94. Capuron, p. 135 to 148.

Pelletan was desired to examine this testimony and to give an opinion whether the child had actually survived its mother. He remarks that there are certain causes of death which may destroy the mother while the life of the infant may be preserved ; of this nature, are sudden accidents, as drowning, a blow on the head, or violent hæmorrhage. Fœtal life is even compatible, with some inflammatory complaints, but the probability is certainly against the surviving of the child, when the mother dies from a lingering and wasting disease. For this reason and also because it does not appear to have arrived at the full time, he was of opinion, that the child had died in the womb. As to the signs of life, even if they were fully substantiated to have been present, he conceives them equivocal—the pulsation and heat were probably the remains of fœtal existence. And if the surgeon was correct in believing that the heart beat for three quarters of an hour, he was certainly blamable in not using means to promote respiration. But the probability is, that he was deceived.

For these reasons, Pelletan gave it as his opinion that the mother survived the child.*

I have been favoured with a communication on this subject by the Hon. DE WITT CLINTON. Some years since, he informs me, a case embracing the succession to a large landed estate, was tried in one of our courts under the following circumstances. The mother and child both died during delivery. If the latter was found to have survived, the father, by our law, was the heir ; if the former, her relatives became entitled to the property. On the trial, it was proved that the child was born alive ; and the question of the priority of death was then decided against the parties claiming as heirs of the mother.

* Pelletan, vol. 1, p. 322 to 341

2. *Of the presumption of survivorship of persons of different ages, destroyed by a common accident.*

It will readily be observed, that if a father and son, or a husband and wife, perish in one common accident without witnesses, disputes may arise concerning the disposition of their property. Provision has accordingly been made in several codes for the avoidance of such difficulties. I shall give a concise sketch of these, interspersed with cases, to shew the course of legal decisions on this curious subject.

The earliest ROMAN LAW on this point, directs the order of succession when persons of different ages die in battle. If two individuals of this description fell at the same time, he who had not arrived at the age of puberty, was to be deemed to have died first; but if a father and a son arrived at his majority, lost their lives together, the son was considered to have survived the father. In process of time, this provision was extended to all cases, where the precise period of death was unknown, and it was decreed, that in the case of a husband and wife, the former should be adjudged the survivor.*

The spirit of these laws guided the decisions of the continental tribunals for many ages, and Zacchias, in his elaborate discussion on this question, cites cases from several jurisconsults, which were settled according to the dicta of the civil code. The mother, in one instance, was shipwrecked with her young infant, and in another, she, with her two children, also young, were killed by lightning. In both these, the parent was deemed the survivor.†

Our author, also, in his *Consilia*, relates two cases, which deserve mention in this place.

A number of individuals perished by the fall of a building, and among these, a father aged sixty, and

* Digest, lib. 34, tit. 5, *de rebus dubiis*. "Cum pubere filio mater naufragii periit, cum explorari non posset, uter prior extinctus sit, humanus est credere, filium diutius vixisse. Si mulier cum filio impubere naufragio periit, priorem filium necatum esse intelligitur;" &c.

† Zacchias, vol. 1, p. 440, 441.

his son aged thirty. The bodies were found ten hours after the accident. That of the father was uninjured ; but on the head of the son, there was a severe wound. The heirs of each put forth their claims, and Zacchias was consulted by the judges on the case. After a long comparison between the strength and state of health of the parties, he comes to the conclusion that the son survived the father. Being aware, however, that the wound in question was supposed to have accelerated the death of the son, he endeavours to avoid this difficulty by suggesting, that it was not necessarily mortal, nor of a nature to destroy his strength immediately, while the suffocation was so much more urgent a cause of death, that the father, from his valetudinarian state, and his advanced age, would first be destroyed by it.*

The propriety of this opinion is controverted by Foderè, and with considerable shew of justice ; for certainly a wound of the head, and of so severe a nature, may safely be considered the most sudden destroyer of life under the above circumstances.†

In another instance, a man and his family had eaten very copiously of poisonous mushrooms. They were all taken ill, and the domestics were sent to obtain assistance. Before they could return, the husband and wife had both expired. This couple, two years previous, had made an agreement, that whoever survived should possess the sum of two thousand crowns, and on the disposition of this, a dispute necessarily arose. Zacchias, when consulted, gave his opinion, that the husband had survived the wife. His reasons were the following : the husband, though sixty years of age, was robust and healthy, and from the deposition of the servants, appears to have eaten but few of the mushrooms. The wife, on the contrary, although only forty, was asthmatic, and subject to affections of the stomach. She had eaten largely of the mushrooms, and added to these, other indigestible food. A

* Consilium, No. 51.

† Foderè, vol. 2, p. 320, 321

poison, therefore, which acts violently on the organs of respiration, would soonest destroy one already diseased in those parts.*

Foderè objects to this decision, that the opinion of the poison acting on the organs of respiration, is altogether hypothetical, and it probably is so, but certainly the general course of reasoning appears correct.

The ANCIENT FRENCH LAW, in its adjudications, generally followed the Roman. In 1629, a mother, with her daughter aged four years, was drowned in the Loire. The parliament of Paris, on appeal, decided that the youngest had died first. Some years after, however, an opposite decision was pronounced by the same body. The mother, (*Bobie*) and her two children, one aged twenty-two months, and the other eight years, were murdered secretly in the night. The husband claimed the property of his wife, on the ground that the children had survived, and the parliament adjudged it to him.† The discrepancy in this case is very naturally explained by Foderè. Murderers would first destroy those whom they most dreaded, and afterwards proceed to the completion of their intended enormities.

Ricard, a celebrated advocate of the seventeenth century, has preserved a very curious case on this subject.

In 1658, a father and son perished in the famous battle of Dunes; and at noon the same day, the daughter and sister became a nun, whereby she was dead in law. The battle commenced at that very hour. It was enquired which of these three survived, and it was decided that the nun died first. Her vows being voluntary, were consummated in a moment: whereas the death of the father and brother being violent, there was a possibility of their living after receiving their wounds. It was then necessary to decide between them, and after some disputation, it was agreed to follow the Roman law, and to declare,

* Consilium, No. 85.

† *Causes Célèbres*, quoted by Foderè, vol. 2, p. 218.

that the son being arrived at the age of puberty, survived the father.*

In 1751, a merchant, aged fifty-eight, with his wife aged fifty, and his daughter of twenty-seven years, was drowned, with many others, in endeavouring to cross the Seine in a small vessel. The question of survivorship was raised by the relatives, and an opinion was given on the case by the celebrated Lorry.† He observes, that three causes probably conspired to accelerate the death of these individuals—fright—excessive coldness of the water, and any disease that might be present. Throughout the whole of his argument, he appears to proceed on the supposition, that the younger female was menstruating, and hence that the cold water, by checking it, would hasten her death. But this is not stated in any part of the case, and it certainly is very questionable whether, as he would seem to insinuate, that state of fullness of the system which menstruating females have, would accelerate the suffocation produced by drowning. If his argument means any thing, it is certainly directed to this point; and we have then to compare the probable state of a female of fifty who is beyond the menstruating period, and another labouring under that function. Certainly it will not counterbalance the difference in age and strength. He, however, gave it as his opinion that the daughter died first. But the parliament of Paris, by a decree of the 7th of Sept. 1752, admitted the presumption of survivorship to her, and ordered a disposition of the property accordingly.‡

It thus appears, that for a length of time, the provisions of the Roman law were followed in France. But a curious distinction was made. The legal tribunals regulated the descent of property by them, but would not apply them to cases where legacies were

* Foderè, vol. 2, p. 220. Smith, p. 382.

† This opinion, or "*Consultation de Médecine*," is published at full length in Mahon, vol. 3, p. 152. It is signed by Doctors Payen and Lorry, but was written by the latter.

‡ Foderè, vol. 2, p. 220, 316.

bequeathed, and for this reason. It is necessary (say they) that a man should have heirs, but it is not necessary that he should have legatees ; and accordingly, when testator and legatee died at the same time, the property passed to the heirs. The lieutenant of a vessel bequeathed the sum of two thousand francs to his captain, by a will which he made before going to sea. Both captain and lieutenant were lost in the same vessel, and when a law case was raised as to the legacy, the property was adjudicated in the manner above stated.*

The PRESENT FRENCH LAW on this subject, is contained in the following sections of the civil or Napoleon code.

“If several persons, naturally heirs of each other, perish by the same event, without the possibility of knowing which died first, the presumption as to survivorship shall be determined by the circumstances of the case, and in default thereof, by strength of age and sex.

“If those who perished together, were under fifteen years, the oldest shall be presumed the survivor.

“If they were all above sixty years, the youngest shall be presumed the survivor.

“If some were under fifteen, and others above sixty, the former shall be presumed the survivors.

“If those who have perished together, had completed the age of fifteen, and were under sixty, the male shall be presumed the survivor, where ages are equal, or the difference does not exceed one year.

“If they were of the same sex, that presumption shall be admitted which opens the succession in the order of nature—of course the younger shall be considered to have survived the elder.”†

Although these provisions are in the main founded on correct physiological principles, yet there are some objections of weight pointed out by Foderè. The

* Foderè, vol. 2, p. 221.

† Civil code, sects. 720, 721, 722—quoted by Foderè, vol. 2, p. 222, and Smith, p. 379.

clause that adjudges the survivorship to those under fifteen, when they and persons above sixty perish together, is certainly imperfect, since it may include infants of one, two or three years. These certainly would expire the soonest. And again, no provision is made for the case when persons under fifteen and under sixty perish together.*

The ENGLISH LAW appears to have no provisions on the subject, except so far as the civil law is incorporated with it. There are, however, some cases which deserve mention.

In 1772, General Stanwix and his daughter set sail in the same vessel from Ireland for England. They were shipwrecked, and not a single person on board was saved. The representative of the father to his personal estate, was his nephew, and the representative of the daughter, was her maternal uncle. These parties brought the case into chancery. On behalf of him whom the General's survivorship would have benefitted, it was argued, that the ship being lost in tempestuous weather, it was more than probable that the General was upon deck, and that the daughter was down in the cabin, (as is almost ever the case with ladies in these situations,) and of course subject to more early loss of life than her father, who, as a man of arms and courage was, it was asserted, more able and more likely to struggle with death than a woman, and in which he might probably have been assisted by the broken masts, and other parts of the rigging.

On the other side it was contended, that the General was old, and consequently feeble, and by no means strong enough to resist the shocks of such a terrible attack; that the daughter was of a hale constitution, and though of the weaker sex, yet being younger than her father, was proportionably stronger, and from the circumstances of youth, more unwilling to part with life, and that the probability of survivorship was therefore infinitely in favour of the daughter.

* Foderè, vol. 2, 223 to 226.

A second wife of General Stanwix also perished with him, and her representative brought forward a separate claim to the disputed property.

The court, however, finding the arguments on all sides equally solid and ingenious, waived giving any decision, and advised a compromise, to which the several claimants agreed.*

Another case I have obtained from an English newspaper, but there is probably no doubt of the general correctness of the report. It was tried in the Prerogative Court, Doctor's Commons.

Job Taylor, quarter master sergeant in the royal artillery, had made a will, in which he appointed his wife, Lucy Taylor, sole executrix and sole residuary legatee. Having been for some time in Portugal on foreign service, he was returning home with her on board the Queen Transport, when the vessel in Falmouth harbor, struck upon a rock, in consequence of the violence of weather, and sunk almost immediately afterwards. Nearly three hundred persons on board perished, and among them, Taylor and his wife. Taylor died possessed of property to the amount of £4000, and a bill in chancery was filed by the next of kin of the wife against those of the husband, to ascertain who was entitled to this property, but the proceedings were at a stand for the want of a personal representative of the husband. Both parties, therefore, applied to the court for letters of administration generally, or that the court would suspend granting any to either party during the dependence of the chan-

* Fearne's posthumous works, pages 38 and 39. This case appears to have attracted the attention of Mr. Fearne, and he accordingly prepared arguments for the purpose of seeing what could be advanced on both sides, with some appearance of reason ; and after his death, they were published in the above collection. The scope of the argument in favour of the representative of the daughter, is, first, to overthrow the probability that they both died at the same instant, and next, to strengthen the rule of the civil law, that the child shall be presumed to have survived the parent. The argument in favor of the representative of the father, is aimed against the propriety of allowing any weight to presumption, and it urges the known fact, that the father died possessed. This, it is conceived, should destroy a claim founded on the uncertain, unknown possession of a niece. (See page 35 to 72.) Both these arguments deserve an attentive perusal

very suit, and in the mean time grant a limited administration. This latter prayer was, however, abandoned, on understanding that the court could not grant a limited administration, where a general one might be granted and was applied for; and the present question therefore was, to whom the general administration should be granted—whether the next of kin to the husband as dying intestate, his wife not having survived so as to become entitled under his will, or the representatives of his wife, as his residuary legatee, she having survived so as to become entitled under that character.

It appeared from the affidavits exhibited on both sides, that at the time the accident happened, Lucy Taylor was below in the cabin, and her husband on deck. The water was rushing in fast, and he offered large sums to any one who would go below and save her, but finding none would venture, he descended himself, and the vessel immediately afterwards went to pieces. The bodies of Taylor and his wife were found close together, and it further appeared that she was a woman of a very robust constitution, and in the habit of enduring great fatigue by the management of the officers' mess, as well as that of a great many of the soldiers; whilst he was rather sickly, and had been latterly much afflicted with an asthma.

It was contended on the part of the husband's next of kin, that by the principles of the Roman civil law, which had been adopted into the law of this country, and were in fact the only principles governing a case of this kind, it was laid down, that where two persons perished together in a common calamity, and it became a question which of the two was the survivor, the presumption of law should always be in favour of the person possessing the more robust constitution and greater strength, as being thereby the better fitted to struggle with the difficulties of his situation, and resist for a longer time the operation of death. Thus when the father and the son shall perish together, the

presumption of the survivorship is in the favour of the son if above the age of puberty, but of the father if under : the same as to a mother and daughter ; and as to husband and wife, the presumption is in favour of the husband. This, however, like all other legal presumptions, was liable to be repelled by evidence to the contrary, but in this case it was contended, from the situation of the wife at the time the accident happened, that it was most probable she had perished before her husband descended to her rescue. Upon both grounds, therefore, both of principle and of fact, the court must conclude that the husband was the survivor, and accordingly grant the administration to his next of kin.

On the part of the wife's next of kin, it was contended, that the presumption of law alluded to, was only applicable to cases where parties perish together in such a manner as to preclude the possibility of obtaining any evidence as to which of them was the survivor. Where, however, evidence as to that fact was produced, as in the present case, the case must be decided upon that evidence only. Here it appeared, the parties had perished by the same accident, and their bodies were afterwards found together, and that the common course of nature had in this instance been inverted, by the wife being the most strong and robust of the two. The court must, therefore, necessarily conclude that she was the survivor, and accordingly grant the administration of her husband's effects to her representatives.

Sir John Nicoll observed, that this case presented itself for decision under very singular circumstances. He recapitulated them, and observed, that the question as to the limited administration had not been gone into, but that with respect to general administration, the counsel had argued upon the legal presumption of survivorship, and whether or not that presumption was sufficiently repelled by the facts in evidence. He agreed to the doctrine that had been laid down, of the presumption being in favour of the

husband, but it was a necessary preliminary question upon whom the burden of proof rested. The administration to the husband being the point in issue, his next of kin had *prima facie* the first right to it ; but there being a residuary legatee, this right became superseded. The parties claiming under this latter character were not residuary legatees themselves specifically, but merely derivatively from one who was. They were, therefore, one step further removed from the property. The presumption of law was certainly always in favour of the heir at law, with regard to freehold, and equally so of the next of kin with regard to personal property, the statute of distribution disposing of an intestate's property among his next relatives, solely upon the presumption that such was his intention, unless the contrary should be expressed. It was, therefore, incumbent upon the representatives of the wife, in this case, to prove her survivorship, as the party in whom the property vested, and from whom in consequence they derived their claim to it. He then entered into an explanation of the facts in evidence, and was of opinion that they were insufficient to repel the presumption of the husband's having survived the wife, which the court was bound to assume, from the circumstance of their having been overwhelmed by one common calamity, and having perished together ; observing, in particular, that though the wife might be very active and laborious in her domestic duties, yet the natural timidity of her sex might prevent exertion in the moment of danger, whilst the husband, on the other hand, though laboring under the bodily affliction of an asthma, might still retain his manly firmness in resisting impending destruction, particularly as from his situation in life, he must have often faced death in various shapes. He was therefore in no degree satisfied by the proofs in the cause, that the wife survived the husband, and should therefore decree the administration to his next of kin. In thus deciding the law, however, he did not mean to affirm positively which of the two was the survivor,

but merely that there was not sufficient proof that it was the wife, to repel the presumption of law that it was the husband. The administration was accordingly granted to the husband's next of kin.*

A still later case is on record, viz. that of *Mason v. Mason*, which came before Sir William Grant, the Master of the Rolls, in March, 1816. The father, a middle aged man, embarked with his son on board a vessel in India, on a voyage to England. The ship was lost, and all on board perished. In favour of the son, the civil law and the Napoleon code were cited; but it was replied, that as the father's will bequeathed certain property to each of his children, "who should be living at the time of his death," it required positive proof, and not presumption. The opposite party cannot prove that the son survived. The master of the rolls appears to have been of opinion against the son, but he finally sent to a jury, to try whether Francis Mason was living at the death of the testator.† The result of this I have not been able to find.

In reviewing these cases, it may probably appear to some that physical principles will never be sufficient to decide with any degree of probability. This indeed is the opinion of some medical jurists, as Belloc and Duncan.‡ Others again, and in particular Zacchias, have laid down rules for judging in all the various kinds of accidents that may occur. Thus, in those dead from hunger, young men should be supposed to have first perished, then infants, and lastly, old men—and as to sex, women probably survive. In cases of drowning, a dissection and examination of the organs immediately acted upon may lead to correct opinions, while in those found dead from noxious exhalations, we should examine the relative situations of the bodies to the noxious air, and the state of thoracic capacity. In all cases, the state of health should,

* The title of this case is *Taylor and others v. Deplock*.

† *Merivale's Chancery Reports*, vol. 1, p. 308.

‡ *Belloc*, p. 161. *Edin. Med. and Surg. Journal*, vol. 1, p. 334

if possible, be ascertained, and apoplectic habits should always be deemed to have been the earliest sufferers.*

But if the fallacy of these doctrines be urged, it then remains to adopt some positive rules, and in so doubtful a subject, those which approach the nearest to natural justice will be the best. I cannot, however, agree with a late writer, in proposing, that in *all cases*, the order of nature should be presumed to have taken place, and that therefore, if father and child die, whatever be their physical powers or age, the child should be considered as having survived the father, and so in all cases of successions.† Certainly this would be manifestly unjust, if broadly adopted.

No one, however, will doubt the propriety and indeed the necessity of positive laws on this subject. And I must confess that the provisions of the French code, with some modifications, appear to me the best adapted for administering equitably in the majority of cases that may occur.

* Zacchias, lib. 5, tit. 2, quest. 12. He also adds, that when persons are destroyed in a fire, those who are suffocated expire, before those who burn to death. See Foderè, vol. 2, p. 228 to 332. Smith, p. 330.

† Brande's Journal, vol. 3, p. 41.

CHAPTER XI.

AGE AND IDENTITY.

1. Notice of some questions in which the testimony of medical men may be required as to the age of an individual—the age at which he is considered capable of committing certain crimes. The period of absence that is considered as presumptive proof of a man's death. Decisions on this subject in England—in the state of New-York. Age beyond which pregnancy is impossible—Cases. 2. Identity. Cases where physicians may be required to identify individuals by physical marks. Remarkable instances in France—Martin Guerre—Francis Noiseu—Sieur de Caille—Baronet. Effects of age in altering the personal appearance. Remarkable instances of disputed identity at New-York—in England.

Age is a subject of copious discussion with many of the older writers on medical jurisprudence, and even Foderè has enlarged on it in an extended manner. I can however conceive but very few cases, in which a physician can be called on to give an opinion concerning it. There are laws in all civilized countries, defining the various periods, such as minority, majority, &c. and if the registers or testimonials to prove these are wanting, it is difficult to suggest any physical proofs on which a medical man, more than any other individual, can venture to pronounce decisively.*

There are however exceptions to these remarks, as the readers of these pages must have noticed. It is often of the highest importance to ascertain the age of a fœtus, or a new-born child ; but the proofs of these have been more properly, we conceive, investigated in another place. There are also, some points in the age of individuals which deserve consideration in a treatise on MEDICAL POLICE, such as the proper period for contracting marriage, and the division of life into

* It appears, however, that in certain cases where doubt exists as to the age of an individual, *he is to be brought into court to be inspected by the judges*, whether he be of full age or not. If the court has, upon inspection, any doubt of the age of the party, it may proceed to take the proofs of the fact. Blackstone, vol. 3, p. 332. See Poyntz's case in Croke's James, p. 230.

the different terms of infancy, youth, manhood and old age.

It is proper notwithstanding to make some suggestions relative to this subject.

1. In the English and in our own laws, certain periods of life are prescribed, before which, individuals shall not be deemed guilty of particular crimes. Thus a male infant under the age of fourteen, is considered incapable of committing a rape. But it deserves notice, that occasionally, though of course rarely, there are cases of *early puberty*, where the strength and ability are fully sufficient to complete this crime, under certain circumstances. Instances are related where the generative functions have appeared perfect at a very early age, and every mark of manhood has been present.* Whether in a case of this kind, the premature powers of the individual should not be considered, instead of his actual age, is a question for legislators. While the period is positively fixed by law, no question can be raised concerning it.

2. Metzger suggests another point, which may occasionally require the opinion of a physician, viz : *How long a period of absence shall be considered as presumptive proof of a man's death ?*†

There are some law cases which may be quoted in elucidation of this. In *Benson v. Oliver*, in the court of exchequer, 5 George 2d, 1732, before Chief Baron Reynolds. "Upon trial of an issue directed by the court of exchequer, the deposition of a witness examined in 1672, was offered to be read, without any evidence of his being dead, relying upon the presumption

* Instances of premature puberty in the male are related by Drs. White and Breschat, and Mr. South, in the *Medico-Chirurg. Transactions*. (See vol. 1, p. 276; vol. 11, p. 446, and vol. 12, p. 76.) The subjects were each about three years of age. Ballard mentions a case that lately occurred in Paris, where a female attributed her pregnancy to a boy ten years old. Instances of infantile menstruation are related by Dr. Wall, (*Medico-Chirurgical Transactions*, vol. 2, p. 116;) and by Astley Cooper, (*Do.* vol. 4, p. 204.) See also Stalpart, vol. 1, p. 336. *London Med. and Phys. Jour.* vol. 27, p. 522. *Chapman's Journal*, vol. 2, p. 198. The *Philosophical Transactions* also contain several examples of premature puberty in both sexes. See vol. 19, p. 80; vol. 42, p. 627; and vol. 43, p. 249.

† Metzger, p. 242.

from length of time, which would entitle the reading of a deed at that date. The chief baron refused to let it be read, saying, a deed had some authenticity from the solemnity of hand and seal. He said, if proper searches or inquiry had been made, and no account could be given of him, he would have admitted it at such a distance of time.”* Again, in *Dixon v. Dixon*, where a legatee had been abroad twenty-six years, and had not been heard of for twenty-five years, the master of the rolls said he would presume him to be dead.† Chancellor Kent, in this state, has decided, that ignorance in a family of the existence of one of the children, who had gone abroad at the age of twenty-two, unmarried, and had not been heard of for upwards of forty years, is sufficient to warrant the court or jury, to presume the fact of his death without issue.‡

The French code is very cautious on this subject. It requires thirty-five years of absence, or one hundred years since the birth of the absent person, before the heirs can demand a division of his property, and be put in definitive possession of it.||

In the state of New-York, the presumption of the duration of life is reduced to the period of five years, provided the party has not been heard of during that time, and marriages are allowed to be contracted after the period stated ;§ but the space of seven years is adopted in the act for the more effectual discovery of the death of persons, upon whose lives, estates depend.¶

3. A third subject discussed under this title has been, *the age at which pregnancy is possible, and beyond which it cannot occur.* The last is said to have

* Strange's Reports, vol. 2, p. 920.

† Brown's Chancery Cases, vol. 3, p. 510. "Where no account can be given of a person, the presumption of the duration of life (in England) ceases at the expiration of seven years from the time he was last known to be living." Phillips' Law of Evidence, p. 152. See also *Doe v. Jesson*, 6th East's Reports, p. 80.

‡ Johnson's Chancery Reports, vol. 5, p. 263.

§ Code Civil, sect. 129. See the whole chapter.

¶ Revised Laws, vol. 1, p. 113.

¶ Ibid. vol. 1, p. 103.

been much canvassed in the famous Douglas cause, tried some years since in England.* I have already incidentally noticed this in a former chapter, and mentioned some cases of births in females of an advanced age.† As to premature pregnancy in European countries, the most astonishing instance probably is given by Meyer, of a Swiss girl becoming a mother at nine years of age.‡ Concerning this and similar cases, we can only say, that they are examples of precocity, resembling those which occasionally occur in the other sex.

“The English law admits of no presumption as to the time when a woman ceases to have children, though this enters into most other codes.”||

The subject of IDENTITY seems to have a connection with the one we have noticed, and like it, may occasionally require the opinion of physicians.

Cases have not unfrequently arisen, both in civil and criminal courts, where the question at issue has been, *whether an individual be really the person whom he pretends or states himself to be.* The controversy in such instances must originate from the resemblance that exists between him and another person; and that this has often been most striking, we have not only the testimony of antiquity, but the experience of all who have had opportunities of extensive observation. The title of one of the chapters of Pliny’s Na-

* Brande’s Journal, vol. 3, p. 39.

† Vol. 1, p. 120. If such cases present themselves in legal investigations, the proofs in favor of maternity should be clear and decisive. Probably the most remarkable instance on record, (*if true*,) is that related by the bishop of Seez, in the memoirs of the French Academy of Sciences for 1710, of a man in his diocese, at 94, and a woman at 83, having a child. Memoirs of Literature, vol 7, p. 78.

‡ Brendel, p. 76. Metzger, p. 480.

|| The law is thus laid down in Reynolds v. Reynolds—Dickens’ Reports, vol. 1, p. 374—on a motion to divide a legacy among all the children living at the decease of a father. The father was sixty-two, and the wife of the same age, and infirm, and therefore there was no probability of their having more children. Sir Thomas Clarke, master of the rolls, said, that though it might be improbable, yet it was not impossible, and would have denied the motion, but the father consenting, and the other children consenting, that their respective shares should stand as a security to answer what any after born child, should there be one, might be entitled to, the court granted the motion.

tural History, is *Cases of Resemblance*, and he enumerates several persons who could hardly be distinguished from each other—the great Pompey, from the plebeian Vibius—the consuls Lentulus and Metellus—and the impostor Artemon, from Antiochus, king of Syria.

When cases in which the identity of an individual is contested, come before a court, the difference of opinion that exists, will generally be of such a nature as to render the duty of the tribunal trying and difficult. This subject is calculated to excite attention, to awaken discussion, and to cause great positiveness of opinion on one or the other side. Every feeling of the heart is enlisted, and the oaths of individuals must necessarily be of the most discordant and opposite nature. It may be stated generally, that in such instances, the advice of the physician may assist in leading to the detection of falsehood, and the establishment of truth. If there be any thing like positive data, which cannot deceive, he can aid in their development: and they must be drawn from a source which naturally falls under his province.

The narrative of a few cases will prove the most instructive notice that I can give of this subject.

The most celebrated, probably, that has ever occurred, if not in Europe, at least in France, is that of Martin Guerre, brought before the parliament of Tholouse in 1560. Its incidents are so extraordinary, that many have deemed it a fictitious narrative.

Martin Guerre had been absent from his home for the space of eight years. An adventurer named Arnald Dutille, who resembled him, formed the design of taking his place, and actually succeeded so far, as to be received by the wife of Martin as her husband, and to take possession of his property. Children were born to this union; and he lived three years in the family, with four sisters and two brothers-in-law of Martin, without their suspecting his identity. It became, however, a subject of dispute. Several hundred witnesses were examined, and of these, thirty or

forty swore that he was the real *Martin Guerre*; nearly the same number, that he was *Arnauld Dutille*; while others deposed, that the resemblance between the two men was so great, that they could not decide whether the prisoner was an impostor or not. The perplexity of the judges on this occasion was very great; but in spite of many things that weakened his cause, they were on the point of deciding in favour of Arnauld, when the arrival of the true Martin developed the deceit. Even when confronted, the impudence and effrontery of Dutille was such as to lead many to doubt, until the brother and sisters of the absent person fully recognized him.

I am unable to say, whether physical resemblances were much noticed in this case, as the above narrative is all the authentic information that I have been able to obtain concerning it. In the following instances, however, there appears to have been considerable discussion on these points.

A child, called *Francis Noiseu*, born at Paris on the 22d of Dec. 1762, was put to nurse in Normandy. When about sixteen months old, it was taken ill, and in consequence was bled in the right arm. It had also a cicatrix on the inner side of the left knee, from a gathering which had been cured by caustics.

On the 13th of August, 1766, this child, aged three years and eight months, was lost, and could not be found; but on the 16th of June, 1768, its godmother, seeing two boys pass, was struck with the voice of one of them. She called him to her, and became convinced that it was her godson. The knee and arm were examined, and the cicatrices found.

In the meanwhile, another person, the widow *Labrie*, claimed this as her son. It had marks of the small pox on its body, and this was, on investigation, deemed a strong argument in her favour, since it was not pretended that Noiseu had labored under this disease previous to his being lost. Many witnesses also attested to its being her child. After several examinations before various courts, it was decided that the boy was the son of the widow Labrie.

Foderè impugns this adjudication, and with great appearance of justice. He observes that there were evidently physical marks sufficient to guide to a proper decision, and that these were disregarded. The cicatrix at the knee, according to one party, was caused by an affection to which *caustics* had been applied ; while, according to the other, it had originated from a slight tumour or *abrasion* during the period of nursing. Certainly, surgeons could decide from the appearance, which of these causes produced it. Again, the boy had a cicatrix on the right arm. The widow Labrie said her child had never been bled, while it was stated that Noiseau's had. Three surgeons, on examining this cicatrix, declared it was made with a sharp instrument, but others pronounced that it was the consequence of an abscess, and that no mark of venesection was present. Lastly, it was certainly no argument against the maternity of Noiseau that the boy bore marks of small pox. He was missing nearly two years, and might have suffered under it during his absence. It appears also that the subject of the dispute had some peculiarities in shape, which were not properly investigated.

The *Sieur De Caille*, being a Protestant, fled to Savoy, at the period of the revocation of the edict of Nantes. His son died before his eyes at Vevay. Some years after, an impostor pretended that he was the son of this person, and claimed the succession to his property. He was imprisoned, and his cause remained before the parliament of Aix for seven years. Hundreds of witnesses, (among which were the nurses and domestics of the family,) swore that he was the son of De Caille, and the public sentiment was strongly in his favour, as he was a Catholic. Testimonials, sent from Switzerland, that the real son was dead, were of no avail, and the parliament declared in 1706, that he was what he claimed to be. The wife of this impostor shortly after discovered, that although she had been silent, yet his elevation would not profit her. She therefore began to mention who he actually was, and on appeal, the cause was trans-

ferred to the parliament of Paris. The evidence adduced, showed that the late son of De Caille had some distinguishing peculiarities in shape and make. He was of small height, and his knees approached each other very closely in walking. A long head, light chesnut hair, blue eyes, aquiline nose, fair complexion, and a high colour, were his other characteristics. The stature of the impostor (Pierre Megè, a soldier,) was, on the contrary, five feet six inches, and his black hair, brown and thin complexion, flat nose, and round head, sufficiently distinguished him from the former individual. Other physical conformations were observed, which it is not necessary to mention, but which strengthened the testimony against Megè. The parliament accordingly decided that he was an impostor.

The last French case I shall mention, is that of *Baronet*. He was born in 1717, in the diocese of Rheims, and left his native place, at the age of twenty-five, in search of a livelihood. Having served as a domestic for a length of time, he returned, after an absence of twenty-two years, to claim the little property left him by his parents. His sister, however, had used it, and she prevailed on a neighbour, named Babillot, whose son had departed about the same time that Baronet went away, to claim her brother. Although the attempt failed, and the individual could not be prevailed on to continue in the opinion that Baronet was his son, yet the sister had sufficient influence to cause her brother to be condemned as an impostor, and to be sentenced to the gallies for life.

A few years produced a revolution in the minds of those who had witnessed this cause, and an appeal was made to the parliament of Paris. The celebrated surgeon, Louis, was consulted, and his opinion inclined in favor of Baronet, who was discharged, and put in possession of all his rights.

The physical facts in this case are so striking, that evidently prejudice, and indeed bribery, must have influenced the first decision. Baronet was sixty years old, Babillot was only forty-six. The father

of Babillot swore that his son had a mark, (a *nævus maternus*) on his thigh, but this could not be found on Baronet. Other peculiarities were also mentioned, which identified the individual.*

An examination of the cases just related, will lead to the conclusion, that considerable importance should be attached to physical signs. The recollection of individuals may be weakened, and even the physiognomy of the persons in question may be altered, while marks will remain which are not to be effaced. It is on such, that reliance should principally be placed; although I am far from denying, that instances may occur where, even in these, a most striking conformity will be observed.

But there is another subject of consideration suggested by the present inquiry, which we must not omit; and that is, the change which a number of years produces, as also the hazard that this alteration may be productive of injury to an individual, in causing doubts of his identity.

A noble Bolognese, named Casali, left his country at an early age, and engaged in military pursuits. He was supposed to have lost his life in battle, but after an absence of thirty years, returned and claimed his property, which his heirs had already appropriated to themselves. Although there were some marks which appeared to identify him, yet the change in appearance was so great, that none who remembered the youth were willing to allow that this was the individual. He was arrested and imprisoned. The judges were in great doubt, and consulted Zacchias, whether the human countenance could be so changed as to render it impossible to recognize the person. This distinguished physician, in his consultation, assigns several causes which might produce such an alteration; as age, change of air, aliments, the manner of life, and the diseases to which we are liable. Casali had departed in the bloom of youth; he then

* The above cases are all taken from Foderè, vol. 1, chap. 2, who quotes the *Causes Célèbres*.

entered on the hardships of a military life, and if the narrative of the individual in question was to be credited, he had languished for years in prison. All these causes, he conceived, might produce a great change in the countenance, and render it difficult to recognize him.

The judges, on receiving this opinion, examined into the physical marks, and as the heirs could not prove the death of Casali, his name and estate were decreed to him.*

It is not, however, in foreign countries only that these difficult cases have happened. An individual was indicted and tried before Judge Livingston, at New-York, in 1804, on a charge of bigamy, and the whole evidence turned on the question of his identity. He was called Thomas Hoag by the public prosecutor, but stated himself to be Joseph Parker. Several witnesses swore that they had known him under the name of Thomas Hoag, among whom was a female whom he had married, and afterwards deserted. It was stated that Hoag had a scar on his forehead, a small mark on his neck, and that his speech was quick and lisping. All these peculiarities were found on the prisoner. Two witnesses deposed that Hoag had a scar under his foot, occasioned by treading upon a drawing-knife, and that this scar was easy to be seen, and had been seen by them. On examining his feet in open court, *no scar was to be found on either of them*; and it was further proved, that at the period of his alleged courtship of the second wife in Westchester county, he was doing duty as a watchman in the city of New-York. The jury acquitted him.†

* Zacchias' Consilium, No. 61.

† This account differs somewhat from the account given in Smith, p. 500. I have taken my narrative from the cotemporary journals of that period, and have reason to believe it perfectly accurate. Dr. Smith also (p. 500) mentions a case that occurred in England in 1817, where, on an inquest, an old man declared a dead female to be his daughter. On investigation, however, the daughter was found alive and hearty, and was produced before the coroner. The resemblance here was very great between the living and dead woman.

CHAPTER XII.

MENTAL ALIENATION.

1. Of the symptoms that constitute a state of insanity. Division of insanity into mania—monomania or melancholy—dementia—and idiotism. *Mania*. Precursory symptoms. Symptoms—state of the countenance—language and actions—disordered appetite—state of the stomach and bowels—condition of the tongue and pulse—insensibility to cold and heat—perversion of the senses—the ear—the eye—the smell, taste, and touch—wakefulness—loss of memory—pusillanimity. Duration of a paroxysm. *Monomania*. Its character. Danger of suicide or violence from the insane of this class. *Melancholy*. Age most liable to it. Symptoms—peculiar cast of countenance—state of the eye—concentration of the thoughts on one idea—fixed position of the body—condition of the pulse—of the skin, tongue, and bowels—peculiar odour. Sanity on subjects not connected with the morbid impression. Length of time that this impression remains. General exemption of infancy from attacks of mania and melancholy. *Dementia*. Generally a consequence of mania and melancholy. Its characteristics. *Idiotism*. Its frequency in some countries, as the Valais and Carinthia—Cretins. Characteristics of idiotism—deformity of the skull—peculiar countenance—affection of various senses. Its complication with other diseases. Other forms of insanity. General causes of it. 2. Of feigned and concealed insanity. Rules for their detection. Remarkable instances of the latter. 3. Legal definition of a state of mental alienation, and the adjudications under it. Common law of England as to idiots and lunatics in civil cases—in criminal cases. Law in the state of New-York in the same cases—method of proving a person a lunatic—method of proving his recovery. Lucid interval—ancient meaning of this term—definition of it at the present day by D'Aguesseau—Dr. Percival—Dr. Haslam—Lord Thurlow—objections of Lord Eldon to the opinion of the latter—application of the term in criminal cases—difficulties on the subject. 4. Inferior degrees of diseased mind. Delirium of fever. Hypochondriasis. Hallucination. Epilepsy. Nostalgia. Intoxication—its presence does not excuse from the guilt of crimes—a frequent cause of insanity. Old age. 5. Of the state of mind necessary to constitute a valid will—legal requisites—nuncupative wills—wills disposing of personal property—testaments. Persons who cannot make valid wills. Diseases which incapacitate an individual from making a will. 6. Of the deaf and dumb—their capacity, and the morality of their actions—are to be judged of according to their understanding. A person born deaf, dumb and blind, is deemed an idiot—if he become so, a *non compos*. A deaf and dumb person may be a witness—may obtain possession of real estate—may be tried for crimes. Cases of each.

I have chosen the term, mental alienation, at this time, because it is more comprehensive than others in common use. It permits us to consider under one title, all those diseased states of mind, which occasionally require the investigation of the medical jurist.

In examining the subject of insanity, I propose to confine myself to those points, which are particularly noticed in civil and criminal cases, as it would neither comport with the limits of the work, nor the objects for which it is prepared, to extend the research over that broad field which is usually occupied by the medical pathologist. And we shall find that the symptoms are the important subject of inquiry, since a decision is usually founded on the estimate formed of them.

I shall accordingly arrange my remarks in the following order :

1. The symptoms that constitute a state of insanity.
2. Of feigned and concealed insanity.
3. Of the legal definition of a state of mental alienation, and the adjudications under it.
4. Of inferior degrees of diseased mind.
5. Of the state of mind necessary to constitute a valid will.
6. Of the deaf and dumb—their capacity, and the morality of their actions.

1. The symptoms that constitute a state of insanity.

Insanity, in its ordinary acceptation, is usually divided into mania, melancholia and idiocy ; but I prefer the classification proposed by M. Esquirol, as better calculated to illustrate the varied appearances of the disease. The following is the order pursued by him. 1. Mania, in which the hallucination extends to all kinds of objects, and is accompanied with some excitement. 2. Monomania or melancholy, in which the hallucination is confined to a single object, or to a small number of objects. 3. Dementia, wherein the person is rendered incapable of reasoning, in consequence of functional disorder of the brain, not

congenital. 4. Idiotism, congenital, from original malconformation in the organ of thought.*

Mania. In many instances, though it is far from being general, pain in the head and throbbing of its arteries precede an attack of insanity ; and sometimes giddiness is complained of, as a precursory symptom.† The appearance of the eye is however the circumstance most readily to be noticed, and the change in it from a state of health, even precedes incoherence of language. Recovered patients have described a peculiar sensation connected with this appearance, as though the eye flashed fire from being stricken smartly with an open hand, and this increased, in proportion as the ideas became more and more confused. There is a peculiar muscular action of these organs, a protrusion of the eyes, a wandering motion, in every possible direction, and in a manner peculiarly tiresome to the beholder. During a paroxysm they appear as if stiffly and firmly pushed forward, and the pupils are contracted.‡ And yet with all these appearances of excitement, it has rather a dull, than a fierce character.

The muscles of the face also, partake in the change, and the rapidity of the alterations they undergo, depends on the succession of ideas which pass with such velocity through the mind of the sufferer.

As the attack advances, the individual becomes uneasy, is unable to confine his attention, walks with a quick and hurried step, and while doing so, suddenly stops. Men of the most regular and established habits, will suddenly become active, jealous and restless ; they abandon their business and enter into the most extravagant undertakings, while on the other hand, some who naturally are of a lively disposition, become indolent and indifferent, fancy themselves sick, or have a presentiment of severe disease. Persons subject to habitual indisposition, which has dis-

* Medico-Chirurg. Review, vol. 1, p. 249, *American edition*. This is an analysis of the masterly article of Esquirol on insanity, in the *Dictionnaire des Sciences Medicales*.

† Haslam on Madness, p. 41.

‡ Hill, p. 68.

appeared suddenly, fancy themselves in high health, and are greatly elated.* A very vigorous action of body and mind soon takes place, and particularly the exertion of great muscular strength. And here, it is impossible to present any thing like a description that shall be generally applicable. The language is totally different, both in tone and manner from the usual habits of the maniac. He becomes angry without any assignable cause—attempts to perform feats of strength, or efforts of agility, which shall strike the beholder with astonishment at his great powers. Many talk incessantly, sometimes in the most boisterous manner, then suddenly lowering the tone, speak softly and whisper. The subjects vary equally. They are never confined long to one point, but voluble and incoherent, run rapidly from one point to another, totally disconnected with it. The same phrase is sometimes repeated for a length of time, or conversation is maintained with themselves, as with a third person, with all the variations of violent, and ridiculous gestures. In females, there is frequently a complication, as it were of hysteria, with general madness, and laughing or weeping is a common attendant.†

The food necessary for the sustenance of life is often neglected, and fasting is endured for a length of time without any apparent inconvenience, yet with some, there is an unusual and indiscriminate voraciousness, and they swallow every thing that may come in their way.

The stomach and bowels are unusually torpid—costiveness prevails, and the stools are white, small, and hard. Diarrhœa rarely occurs except towards the termination of the disease. The urine is scanty in quantity, and for the most part, of a high colour.

The pulse is very various, sometimes full and laboured, and sometimes natural. But little depen-

* Parkman. I am greatly indebted, in this chapter, to the publications and MS. communications of this learned and diligent examiner of the subject of insanity.

† Rush, p. 145.

dence can be placed on it as an indication. The tongue is usually moist, and sometimes has a whitish appearance, and there is often a preternatural secretion of saliva and mucus in the mouth and throat, which is of a viscid nature, and discharged with difficulty by spitting. There is also generally a stoppage of the secretion of mucus in the nose. Dr. Rush mentions, that Dr. Moore, at his request, examined the maniacs in the Pennsylvania Hospital, with reference to this symptom, and found it present in two thirds of them. Where this secretion was not suspended, he found the mucus of the nose dry and hard.*

Maniacs also endure a degree of heat and cold, which to a sane person, would be inconvenient and even distressing. Haslam indeed objects to the correctness of this, as illustrated by his own experience, and states that the patients in Bethlem Hospital enjoy no exemption from the effects of severe cold.† They are particularly subject to mortifications of the feet, and such of them as are permitted to go about, are always to be found near the fire in the winter season. Notwithstanding these facts are adverse to the generally received opinion, yet I apprehend it is for the most part, found to be correct—at least during the paroxysm. The high degree of mental excitement that then prevails, creates an insensibility to external impressions, and although their effects may be afterwards experienced, as in Mr. Haslam's cases, yet for the present, they are unheeded and unfelt. The same operating cause that endows the maniac with excessive strength, doubtless also, conduces to produce the state under consideration.

The senses are often perverted, and of these, the *ear* more particularly suffers. Haslam observes, that he scarcely recollects an instance of a lunatic becoming blind, but numbers are deaf, and those who are not deaf, are troubled with difficulty of hearing, and tinnitus aurium.‡ It is from the disorder of this or-

* Rush, p. 146.

† Haslam on Madness, p. 84.

‡ Haslam on Madness, p. 67.

gan, and which is referable to the original diseased action of the functions of the brain, that many maniacs derive the delusion under which they labour. The commission which they suppose themselves to receive from some superior being, is given by the ear—they imagine it is constantly repeated. They are thus, they imagine, urged to its performance, and in too many cases, murder or self-destruction is the unhappy result. “In consequence of some affection of the ear, the insane sometimes insist that malicious agents contrive to blow streams of infected air into this organ. Others have conceived, by means of what they term hearkening wires and whizz-pipes, that various obscenities and blasphemies are forced into their minds; and it is not unusual for those who are in a desponding condition, to assert that they distinctly hear the devil tempting them to self-destruction.”*

The *eye* is also diseased. Objects appear bright or fiery, and the organ itself is sparkling and protruded. At other times, it is sunken and dull, and external appearances produce but little impression.

The *smell* does not escape these perversions, although this is by no means so common as with the other senses. A lady twenty-seven years of age, in the last stage of phthisis, perceived in her room an odour of charcoal. She immediately conceived that there was a design against her life. She left her lodgings, but the fumes of charcoal incessantly pursued her till her death. So also with the *taste* and

* Haslam on Madness, p. 69. A curious case is mentioned by our author, (p. 71,) of a patient, who was a well educated man of middle age. He always stopped his ears closely with wool, and in addition to a flannel nightcap, usually slept with his head in a tin sauce-pan. Being asked the reason why he so fortified his head, he replied, “to prevent the intrusion of the sprites.” He was apprehensive that his head would become the receptacle of these imaginary formations; that they would penetrate into the interior of his brain, become acquainted with his hidden thoughts and intellectual observations, and then depart and communicate to others the ideas they had thus derived. “In this manner,” (said he,) “I have been defrauded of discoveries that would have entitled me to opulence and distinction, and have lived to see others reap honours and emoluments for speculations which were the offspring of my own brain.”

the *touch*. The former derives its disorder from the derangement of the stomach ; and the latter in many instances has lost its peculiar power of correcting the other senses. Hence the insane frequently deceive themselves in respect to the size, form, and weight of things around them, and the greater number become unhandy in all mechanical occupations, music, writing, &c.* This, however, is far from being universal, as some speak and write with ease, and are remarkable for striking expressions, deep thoughts, and ingenious associations.

Wakefulness is another symptom, which sometimes precedes all others, and is coeval with pain or uneasiness of the head, or of some other diseased organ ; and its degree is determined by the age, habits, situation, and original vigorous or feeble constitution of the patient. From its being always followed in the morning by the peculiar appearance of the eye already described, it may sometimes lead to proper suspicion, as well as attention to the diseased person. This watchfulness is attended with an irresistible impulse to rise early, go abroad, and ramble about ; or if remaining in the house, to be incessantly employed in arranging and re-arranging articles of furniture, dress, books or papers ; and by thus placing, displacing, and confounding every thing, their ideas become more confused, and they soon give rise to actions of the wild and outrageous nature which we have already described.

The memory is early affected in maniacs. After a time, it seems to be almost destroyed. Some, according to Haslam, lose, in a wonderful degree, their former correctness of orthography.

Pusillanimity is also a remarkable trait in the character of the insane. Though occasionally boisterous and fierce, yet they are readily overcome by a person of decision. Their leading characteristics are timidity, distrustfulness, suspicion—never contented with

* Medico-Chirurgical Review, vol. 1, p. 246.

their present condition, but always desirous of some change. It is this discontent of mind that detaches them from their parents and friends, and causes them to hate most, those whom they previously cherished with the fondest affection. The exceptions to this are few, and even if they retain the semblance of affection, still they will bestow no confidence on the objects of it, nor pay any respect to their solicitations or advice. This alienation from friends is therefore one of the most constant and pathognomonic traits of the malady.*

The duration of a paroxysm is very various. It continues for days, weeks, months, and even years, and ends in death—a remission—or a perfect and durable recovery. Dr. Rush states, that in one case which came under his notice, the disease continued from June, 1810, until April, 1811, with scarcely any abatement in the excitement of the body and mind, notwithstanding the patient was constantly under the operation of depleting remedies. He also witnessed another instance, in which the same remedies were insufficient to produce an interruption for five minutes, of speech or vociferations, except during a few short intervals of sleep, for five months.† Others again have paroxysms with chronic, but moderate derangement in their intervals; and in these intervals, the recovery is sometimes so great as to indicate insanity on a particular subject only. But a reference to this will readily excite a return of general madness.

If the paroxysm ceases suddenly, we have reason to dread the return of another. On its cessation, the patient seems waked from a dream, he is exhausted, speaks or moves but little, and seeks solitude; and if there is an approach to reason, he states what he has seen, heard, or felt—his motives and his determinations.‡

Monomania or melancholy. Here the permanent

* Medico-Chirurgical Review, vol. 1, p. 247.

† Rush, p. 162.

‡ Parkman.

delirium is confined to one object, or to a small number of them. The sufferers are pursued day and night by the same ideas and affections, and they give themselves up to these with profound ardour and devotion. They often appear reasonable, when conversing on subjects beyond the sphere of their delirium, until some external impression suddenly rouses the diseased train.

The character of the first form (that is, if we subdivide monomania from melancholy) is often very various, depending on the predominant character of the delusion, that is present. Some are gay and highly excited—laugh, talk, and sing—fancy themselves deities, kings, learned and noble. Cases of this nature must be familiar to every reader. Foderè mentions one which is strikingly illustrative. A merchant at Marseilles, aged seventy, and always a decided royalist, had devoted himself to heraldic researches. He was so overjoyed at the return of the Bourbons to France, that he became insane. His predominant mania, was to recite with a loud voice, the history of the kings of France, and to fatigue his auditors with a tedious catalogue of chronological facts. If they listened with patience, he was contented and calm, but if any impatience was manifested, his fury became ungovernable.†

Some patients when labouring under this form are excessively irascible, and even without any apparent cause, are suddenly hurried into a violent passion or fury. It is while labouring under this, that they become dangerous to themselves or to those around them. They will seize any weapon and strike or injure others or themselves. Sometimes consciousness of their situation is so far present, as to allow them to warn individuals of their danger, or to intreat them to prevent their doing injury. An internal sensation is perceived—as a burning heat with pulsation within the skull, previous to this excitement. This description of lunatics “eat much, but sometimes they endure

† Foderè, *Traité du Delire*, vol. 1, p. 385.

hunger with great obstinacy ; they have frequent pains in the bowels and costiveness is common. The pulse is full, hard and strong, and the skin warm.”*

Probably this is a form of insanity as common as any other. It is also said to be less durable, and to end more favourably.

Melancholy is a disease of mature age, and rarely affects young and athletic persons. It is also generally characterized by a peculiar appearance, and particularly by black hair and eyes—by a striking cast of countenance, as the complexion is either yellow, brown, or blackish. This is to be ascribed to a sluggishness and torpor of the cutaneous system, and in consequence, the impressions of cold and heat are slightly noticed, and sometimes not heeded. The physiognomy is wrinkled and languid, yet sometimes the muscles of the face become convulsively tense, and the countenance is full of fire.

The pupils of the eye are dilated, and that organ has a peculiarly dull muddy look, rolling heavily on surrounding objects, if it can be roused to move at all. But ordinarily it is fixed with an unmeaning stare on vacancy. The adnata is commonly painted with a dull purplish red, sometimes on a deep orange coloured ground, and this especially, when advancing age and hepatic affections exist, or intemperance has long preceded the attack. Holding a strong light near the eyes, produces a very transient effect.†

Pain is said by some recovered patients to have preceded the attack—sometimes fixed, but more commonly wandering, and the suffering by this is extreme. Great apprehension, which indeed is a characteristic of this form, ensues, and plunges the sufferer into the most gloomy state of mind, accompanied by indifference as to his personal comfort, or urging him forcibly to self-destruction, or to the murder of others. The state of reverie and of delusive ideas, gradually becomes more fixed, and the thoughts are

* Parkman

†Hill, p. 98.

concentrated on one mournful topic, until finally he is, as it were, inanimate, motionless and speechless. A fixed position of the body is a very common attendant. In one instance that occurred to Dr. Rush, the patient sat with his body bent forward for three years without moving, except when compelled by force, or the calls of nature. In another, the sufferer occupied a spot in a ward, an entry, or in the hospital yard, where he appeared more like a statue than a man. Such was the torpor of his nervous system, that a degree of cold so intense as to produce inflammation and gangrene upon his face and limbs, did not move him from the stand he had taken in the open air.*

The pulse is extremely vacillating, and generally is slow and feeble, yet with all this, has a labouring feel, not accompanied with a bold throb, but as though difficulty attended every exertion. A sort of ticking movement is sometimes observed, which is often intermitting, giving from one hundred to one hundred and thirty strokes in a minute.†

The skin is dry and burning, while the extremities are cold, and bathed in a clammy sweat. With these, transient purple-coloured flushings of the face are sometimes an attendant. The tongue is usually of a brownish yellow colour, furred, and has intensely purple red edges. Constipation is a very common symptom, accompanied with flatus and eructation, and diarrhœa is uncommon, excepting the disease is about to undergo a salutary change. The urine is pale, thin and clondless, unless it be morbidly retained, which some do for several days. The thirst is usually great, and a peculiar odour is perceptible from their bodies.

Watchfulness is also common in this form of disease, and sleep when it is present, is often broken by nocturnal visions or frightful dreams.

On objects not relating to the subject or passion

* Rush, p. 216.

† Hill, p. 101.

which characterizes the delirium, they reason and act rightly, and often with great force and subtlety. But the morbid impression once referred to or excited, all is merged in this. And it is equally astonishing and melancholy, how vivid this remains, through the long lapse of years. A young clergyman, two days previous to the appointed period of his marriage, was employed in snipe-shooting with a friend. Accidentally, he received part of the charge of a gun in his forehead. He instantly fell, and did not recover for some days, so as to be deemed out of danger; but at the end of this period, it was perceived that he was deranged. The interesting event that was to have taken place, became the leading object of thought, and all his ideas seemed to stop at this. "All his conversation was literally confined to the business of the wedding; out of this circle, he never deviated, but dwelt upon every thing relating to it with minuteness; never retreating or advancing one step farther for half a century, being ideally still a young, active, expecting and happy bridegroom, chiding the tardiness of time, although it brought him at the age of eighty gently to the grave."*

There are very few melancholics whose delirium is not exasperated every two days; many have a strongly marked remission in the evening and after meals; others are exasperated at the beginning of the day or at evening.† Haslam also observes, that the symptoms are aggravated by being placed in a recumbent posture. And patients, when in the raving state, seem, of themselves, to avoid the horizontal position as much as possible, and when so confined that they cannot be erect, they will keep themselves seated upon the breech. This remark applies equally to mania and monomania.

I may also in this place, add a general remark, with

* Hill, p. 421.

† Parkman. Haslam on Madness, p. 80.

respect to the age most liable to insanity. This is often useful in the formation of an opinion. Infancy seems to be nearly exempted from its attacks, unless there be some congenital malconformation, or unless idiotism be induced by convulsions, epilepsy, or some other previous and severe disease. The disease, however, often occurs in very young persons, and it is about the age of puberty, that its causes begin to operate most powerfully on youth. It is at this period characterized by its rapid progress and height of excitement; in adult age, it is more chronic.*

Dementia. This is often the consequence of mania or melancholy, and is somewhat allied to that decrepitude of mind, which frequently appears in old age. It may also originate from external injury or internal disease.

The understanding and memory are either totally or to a very great extent, impaired in this form of disease; yet on a few points the latter seems sometimes to be in a perfect state. "Habit, however, has a great influence on their conduct, and gives it an appearance of regularity, which should not be mistaken for reasoning."† They hate, love or fear particular individuals uniformly, and kindness or attention will seldom, if ever, give them confidence in those they dislike.

Patients of this description are usually calm and quiet, though occasionally short periods of fury supervene. They sleep much, enjoy a good appetite, and are apt, if neglected, to become slovenly and dirty in their appearance. Esquirol mentions a case, which will give a general idea of this class in its usual form. The patient was a female, aged seventy, who after having passed several years in a state of furious mania, at last fell into dementia. "The hallucination of this individual corresponds with her advanced age, and the long duration of the complaint. She

* *Medico-Chirurg. Rev.* vol. 1, p. 251.

† Parkman.

preserves a few ideas, which still savour of pride. She believes herself the daughter of Louis XVI. but otherwise there is no coherence ; no memory of recent transactions ; no hopes or fears, desires or aversions. She is calm, peaceable ; sleeps well, eats with voracity, and appears perfectly happy.”*

The ideas although few and isolated, sometimes pass in rapid or alternate succession, and this gives rise to incessant babbling, unwearied declamation, and continual activity, without object or design. Occasionally they assume a menacing air, without any real anger, and this is soon succeeded by immoderate laughter.†

The appearance is generally peculiar ; the countenance is pale, the eyes are dull and moist, the pupils dilated, and the look is motionless and without expression. There is a variety as to emaciation or fatness. Some are extremely thin, while others are corpulent.

Idiotism. Individuals labouring under congenital idiotism, are marked by some striking characters. At its commencement, it is indicated both by feebleness of body and feebleness of mind. In some countries, this melancholy disease is not uncommon, and it has been particularly remarked in the Valais in Switzerland and in Carinthia. In the former countries, the subjects of it are styled Cretins. But wherever found, whether in individual instances, or originating in some national cause, the appearance may generally be described as follows :

The skull is smaller and inferior in height to the skull of maniacs, and there is a great disproportion between the face and head, the former being much larger than the latter. The countenance is vacant and destitute of meaning, the complexion sickly, the stature usually diminutive, the lips and eyelids coarse and prominent, the skin wrinkled and pendulous, and the muscles loose and flabby. To these, are usually

* Medico-Chirurg. Rev. vol. 1, p. 270.

† Foderè. Traité du Delire, vol. 1, p. 413.

added, a complication of other diseases. The subjects are rickety, scrophulous or epileptic. The eyes are squinting or convulsive, and the hearing is imperfect or totally destroyed. Dr. Reeve visited the Valais, and saw several of these unhappy beings. One lad, twelve years old, could speak a few words, but was silly and of a weak and feeble habit. Another boy, nine years old, was deaf, dumb and idiotic. Neither of these however had goitres. A third, a girl, twelve years old, was deaf, dumb and cross-eyed, and had a monstrous goitre, while a fourth had an enlarged abdomen and some feeble traces of understanding.*

While some are dumb, others express themselves in inarticulate sounds, cries, or a prolonged roar. A few are able to utter a word or two distinctly, as in the idiot mentioned by Esquirol. This was a female, aged twenty-one years, who had been in the Salpêtrière three years, without any change. Her head was large and irregularly shaped, and the forehead high and prominent, so that the facial angle was more than ninety degrees. She eat voraciously and without discrimination; passed all evacuations involuntary, but the menses were regular and abundant. She walked little, and all her movements were convulsive—she was a perfectly helpless infant, insensible to heat, cold, rain, or even her own internal feelings. She could only utter the words “*papa* and *mamma*,” which she frequently repeated.†

Dr. Rush relates the case of a boy born near Philadelphia, which is no less striking. He was twenty years old when that distinguished physician published his work, and was then unable to walk or speak. He had the head of a man, but all the parts below it resembled those of a child two or three years old. His pulse was from ninety to one hundred and twenty in a minute. He had shed his teeth, and now exhibited a third set, in three distinct rows in his upper jaw. And yet with all this, he was unable to chew

* Edin. Med. and Surg. Jour. vol. 5, p. 32. See also Edin. Review, vol. 2, p. 170, Amer. edit.

† Medico-Chirug. Rev. vol. 1, p. 250.

his food, and all that he took of a solid nature was first chewed for him by his sister. His ears were very large. When hungry or in pain, he cried, but more commonly laughed for hours, and even for whole nights together, and so loud as to disturb the sleep of his family. He discovers mind, says Dr. Rush, in but three things, viz. in an affection for his mother and sister, and in love for a dog, and for money. Distress is manifest when the dog is out of his place, and the pleasure which money gives him, is owing to the association he has been enabled to form between it and the means of procuring gingerbread, of which he is fond.*

With these statements I conclude the present section. I am far from flattering myself that I have collected all the varied symptoms that mental alienation induces, but I trust that the leading outlines have been developed with sufficient accuracy.

Besides the forms of insanity now described, there are others mentioned by systematic writers; as *demonomania*, which is a variety of melancholy, originating from mistaken ideas on religious subjects; and *nymphomania*, or *furor uterinus*, a raving mania of females, connected with a disorder of the generative organs. Other mitigated affections will be noticed hereafter.

A short sketch of the causes of insanity may be introduced in this place. They are usually divided into physical and moral, or bodily and mental; but a separation of this nature is not conducive to just views of the disease. Insanity is essentially a bodily disease, and the moral causes operate in producing it, as they do in producing other complaints.

* Rush. p. 292. I will only refer to another case, and it is that mentioned by Mr. Hobhouse, which was seen by him at the hospital in Smyrna, in 1810. The individual was a female, about three feet and a half in height. She constantly sat, rolled up, as it were, upon a truss of straw—was quite dumb, nearly deaf, and possessed of no one consciousness of humanity. She would hop towards her keeper, on being loudly called by a name with which she was familiar. Her profile is given by Mr. Hobhouse, and it is strikingly characteristic of idiotism. *Travels in Albania*, vol. 2, p. 626. London edit.

We may enumerate the following as remote causes : repeated intoxication—injuries to the head—fever—suppressed discharges and secretions—excessive evacuations—mercury largely and injudiciously administered—paralytic affections—influence of particular seasons—hereditary predisposition—sedentary habits—excess in pleasure—factitious passions—mistaken views of religion—parturition—errors in education—intense application to a particular study or object of investigation—and misfortunes. On age, a remark has already been made ; and it may be added as to sex, that upon a comprehensive comparison, there is found to be no other disproportion among the insane, than among the sane population in general.*

It should be remembered, that the insanity of females is always aggravated at the period of menstruation, particularly when it is in a morbid state.†

2. *Of feigned and concealed insanity.*

The medical witness is often required to decide on the actual existence of insanity, and it therefore behoves him to be well acquainted with its actual symptoms. It is in this point of view, that the enumeration given in the previous section becomes valuable. It will also materially aid in detecting feigned or concealed insanity.

There is no disease, says Zacchias, more easily feigned, or more difficult of detection, than the one under consideration. And hence, he remarks, many great men of ancient times, in order to elude the danger that impended over them, have pretended it ; as Ulysses, Solon, and Brutus the expeller of the Tarquins.

In our day, however, madness is most commonly feigned for the purpose of escaping the punishment due to crime, and the responsibility of the medical examiner is consequently great. It is his duty, and

* Haslam on Madness, p. 208, 210. Medico-Chirurg. Rev. vol. 1, p. 251.
† Marc, in Godman's Western Reporter, vol. 2, p. 68.

should be his privilege, to spend several days in the examination of a lunatic, before he pronounces a decided opinion. If this be allowed to him, and also if he be enabled to obtain a complete history of the antecedent circumstances, much may be effected towards forming a correct opinion. The following remarks may serve as points on which the enquiry is to be grounded, and the comparison instituted.

1. It requires powers beyond the scope of ordinary exertion to counterfeit the character of an active paroxysm to its full extent. The deception is not maintained when the pretenders are alone and unwatched—the assumed malady then disappears, and the imposture is recommenced when they are in the society of others.*

2. A certain cast of countenance, and gestures accompanying it, are so peculiar in the insane, that a medical examiner familiarized to them, will generally be able to designate the state that is present. Pretenders often outstrip madness itself, and seem desirous to exhibit themselves in its most violent and disgusting forms.

3. Real lunatics, at the periods of remission, are desirous of being deemed free from the malady, and often assiduously endeavour to conceal from observation those lapses of thought, memory, and expression, which are tending to betray them. Alexander Cruden, when suffering under his last attack of mental aberration, upon being asked whether he ever was mad, replied “I am as mad now as I was formerly, and as mad then as I am now, that is to say, *not mad at any time.*”† The feigned never desire to conceal their condition.

4. Pretenders are unable to prevent sleep. That watchfulness which is so constant an attendant on the insane, is scarcely to be preserved for any length of time by those who are in actual health.

* Haslam's Med. Jurisprudence of Insanity, p. 322

† Hill, p. 392.

5. The physician should endeavor to obtain from the individual, a history of himself. This requires attention and time, but the prosecution of the enquiry may lead to the developement of some probable motives for his present conduct.*

6. Mr. Hill also recommends attention to the presence or absence of the peculiar animal odour that is observed in maniacs. And "the best mode of making the discovery of it, is to enter the bed-room of the subject on his first awaking, after having slept in a small, ill ventilated room, in sheets and body linen occupied by him for some time, the curtains now to be opened by the Inspector. On inhaling the effluvia under these circumstances, it is scarcely possible to be mistaken."†

7. Dr. Rush proposes a rule, grounded on the following circumstance : the pulse, according to his observation, is more frequent in all the grades of madness than in health. I have already intimated doubts on this point, and therefore can only recommend it as a test worthy of notice, but not of great value. He mentions the following case in which it was applied, and which deserves quotation. Two men were condemned to die in 1794, for treason, committed against the general government in the western counties of Pennsylvania. One of these was said to have become insane after sentence of death was pronounced on him. A physician was consulted upon his case, who declared the madness to be feigned. General Washington, the president of the United States, directed a consultation of physicians, and Drs. Shippen, Rush, and Samuel P. Griffiths, were appointed for that purpose. The man spoke coherently upon several subjects, and for a while, the state of his mind appeared doubtful. Dr. Rush suggested the propriety of examining his pulse. It was more frequent by twenty strokes in a minute, than in the healthy state of the body and mind. Dr. Shippen as-

* Hill, p. 396

† Ibid. p. 396.

cribed this to fear, but when the pulse of his companion was examined, although equally exposed to capital punishment, it was found perfectly natural, both in frequency and in force. This discovery induced the physicians to unite in a certificate, that the individual was really mad. He was respited, and subsequently pardoned.*

8. The administration of a strong solution of tartar emetic, unknown to the suspected person, has been advised. Where a common dose takes a full and powerful effect, deception may be suspected, as it is stated that such an effect never follows this administration in any stage of approaching or actual insanity, and more especially in the maniacal form, which is commonly attempted to be personated.†

9. It is very difficult uniformly to assume that extreme and sudden irritation, which, in real maniacs, instantly arises from any contradiction of their opinions or wishes.‡

10. The attempt to feign melancholy is much more difficult, according to Dr. Haslam, than to pretend mania. "They are deficient in the presiding principle, the ruling delusion, the unfounded aversions and causeless attachments which characterize insanity—they are unable to mimic the solemn dignity of characteristic madness, nor recur to those associations which mark this disorder ; and they will want the peculiarity of look which so strongly impresses an experienced observer."§

11. In cases of doubtful idiocy, the fact should be noticed whether they are pusillanimous and submissive. This is a precept of Zacchias ; but it must also be remembered, that impetuous excesses sometimes occur in individuals of this description. Their

* Rush's Introductory lectures. Lecture xvi. p. 369.

† Hill, p. 396. "Some melancholics, as well as maniacs, are very insensible to the action of drastic purgatives." Marc, Godman's Western Reporter, vol. 2, p. 67. See also Male, p. 257.

‡ Foderè, *Traité du Delire*, vol. 2, p. 500.

§ Halsam's Med. Jurisprudence of Insanity, p. 323.

memory and conception should also be put to the test.*

12. However skilful may be the attempt to counterfeit dementia, and it is the most easily assumed of all the forms, yet there is always in the pretender, a kind of hesitation and reflection to be observed in his discourse. His wild ideas do not succeed each other with the same rapidity, as those of a person whose understanding has been really destroyed. Marc proposes as another test, to repeat to the insane person a series of ideas recently uttered. The pretended madman, instead of wandering incoherently, would judge it most expedient to repeat the same words for the purpose of proving his madness.†

13. It may sometimes be proper, if suspicion exist, to speak of some severe remedy, or to threaten some punishment. The really insane do not heed these, being occupied with the phantasms of the imagination, and they are hence insensible to the operation of hope or fear. The feigned, on the other hand, will often discover by words or actions, the emotion which the threat produces. Zacchias relates that in his day, an able physician ordered, in the hearing of a suspected person, that he should be severely whipped. This was directed on the following grounds : if the patient be really insane, the whipping will produce an irritation on the external parts, and may tend to alleviate or remove the disease. If not, he cannot stand so severe a test. The event proved the success of this mode of reasoning, as the threat alone sufficed to cure the pretended malady.

On the same principle, the following case was detected by Foderé. A female, named Susannah Cloitre, was, in 1789, imprisoned, on the charge of having, in company with others, committed several highway robberies. Before this time, she had repeatedly, through her ingenuity in feigning insanity, escaped pu-

* Marc, Godman's Western Reporter, vol. 2, p. 66

† Marc, *ut antea*, p. 68.

nishment from several tribunals in Savoy and Geneva. Foderè was ordered to examine her, and on his first visit, she counterfeited the maniacal fit in so able a manner, as almost to lead him to certify that she was insane. Recollecting, however, at the moment of departure, the case related by Zacchias, he returned to the door of the prison, and said in a firm tone of voice, the following words: "To-morrow I shall again visit her, and if she continue to howl, if she be not dressed, and her chamber not put in order, you must apply a red hot iron between her shoulders." The next day the chamber was found washed, the prisoners had slept quietly during the night, and the patient was dressed. Foderè continued his visits for some days, when he certified that she was not affected in her mind.*

Whether this investigation should be confided to medical men, or whether individuals generally are competent to it, is a question raised by some writers which I shall not discuss. In disputed cases, both of feigned and concealed insanity, it is very common for persons of every class in society, to come forward with their testimony, stating that the individual is or is not insane, while their depositions are often founded on transient conversations—on short and inattentive examinations, or on a slight notice of counterfeited or ordinary actions. That these are not calculated to determine the true state of mind, has, I hope, been already shewn. That they may lead to serious errors, will particularly appear, when we hereafter notice that form of insanity, in which the boundaries between it and sanity approach so near, that judges and juries often doubt whether the act is the result of madness, or of wickedness.

This disease is observed to be *concealed*, in the hope of escaping the restraints of confinement. And the difficulty of detection is increased by the remarkable cunning, and dissimulation of which some mani-

* Foderè. *Medicine Legale*, vol. 2, p. 461.

acs are capable. A few examples will illustrate this in a satisfactory manner.

“An Essex farmer, about the middle age,” says Haslam, “had on one occasion so completely masked his disorder, that I was induced to suppose him well, when he was quite otherwise. He had not been at home many hours, before his derangement was discernible by all those, who came to congratulate him on the recovery of his reason. His impetuosity, and mischievous disposition daily increasing, he was sent to a private mad-house; there being, at that time, no vacancy in the hospital. Almost from the moment of his confinement he became tranquil, and orderly, but remonstrated on the injustice of his seclusion.

Having once deceived me, he wished much, that my opinion should be taken respecting the state of his intellects, and assured his friends that he would submit to my determination. I had taken care to be well prepared for this interview, by obtaining an accurate account of the manner in which he had conducted himself. At this examination, he managed himself with admirable address. He spoke of the treatment he had received, from the persons under whose care he was then placed, as most kind and fatherly: he also expressed himself as particularly fortunate in being under my care, and bestowed many handsome compliments on my skill in treating this disorder, and expatiated on my sagacity in perceiving the slightest tinges of insanity. When I wished him to explain certain parts of his conduct, and particularly some extravagant opinions, respecting certain persons and circumstances, he disclaimed all knowledge of such circumstances, and felt himself hurt, that my mind should have been poisoned so much to his prejudice. He displayed equal subtlety on three other occasions when I visited him; although by protracting the conversation, he let fall sufficient to satisfy my mind that he was a mad-man. In a short time he was removed to the hospital, where he expressed great satisfaction in being under my inspec-

tion. The private mad-house, which he had formerly so much commended, now became the subject of severe animadversion ; he said that he had there been treated with extreme cruelty ; that he had been nearly starved, and eaten up by vermin of various descriptions. On enquiring of some convalescent patients, I found (as I had suspected) that I was as much the subject of abuse, when absent, as any of his supposed enemies ; although to my face his conduct was courteous and respectful. More than a month had elapsed, since his admission into the hospital, before he pressed me for my opinion ; probably confiding in his address, and hoping to deceive me. At length he appealed to my decision, and urged the correctness of his conduct during confinement as an argument for his liberation. But when I informed him of circumstances he supposed me unacquainted with, and assured him, that he was a proper subject for the asylum which he then inhabited, he suddenly poured forth a torrent of abuse ; talked in the most incoherent manner ; insisted on the truth of what he had formerly denied ; breathed vengeance against his family and friends, and became so outrageous that it was necessary to order him to be strictly confined. He continued in a state of unceasing fury for more than fifteen months.”*

Lord Erskine, in his celebrated speech for James Hadfield, mentions two cases which are striking and instructive. “I examined,” says he, “for the greater part of a day, in this very place, (the Court of King’s Bench,) an unfortunate gentleman who had indicted a most affectionate brother, together with the keeper of a mad-house at Hoxton, for having imprisoned him as a lunatic, whilst according to his own evidence, he was in his perfect senses. I was unfortunately, not instructed in what his lunacy consisted, although my instructions left me no doubt of the fact, but not having the clue, he completely foiled me in every attempt

* Haslam on Madness, p. 53.

to expose his infirmity. You may believe, that I left no means unemployed, which long experience dictated, but without the smallest effect. The day was wasted, and the prosecutor, by the most affecting history of unmerited suffering, appeared to the judge and jury, and to a humane English audience, as the victim of the most wanton oppression ; at last Dr. Sims came into court, who had been prevented by business from an earlier attendance. From him I soon learned that the very man, whom I had been above an hour examining, and with every possible effort, which counsel are so much in the habit of exerting, believed himself to be the *Lord and Saviour of mankind*, not merely *at the time of his confinement*, which was alone necessary for my defence, but *during the whole time, he had been triumphing over every attempt to surprise him, in the concealment of his disease*. I then affected to lament the indecency of my ignorant examination—when he expressed his forgiveness, and said with the utmost gravity and emphasis, in the face of the whole court, “**I AM THE CHRIST,**” and so the cause ended.”

The other statement he derived from lord Mansfield himself, who had tried the cause. “A man of the name of Wood had indicted Dr. Monro, for keeping him as a prisoner, when he was sane. He underwent the most severe examination by the defendant’s counsel, without exposing his complaint, but Dr. Battie having come upon the bench by me, and having desired me to ask him what was become of the PRINCESS, with whom he had corresponded in cherry juice, he showed in a moment what he was. He answered that there was nothing at all in that, because having been (as every body knew,) imprisoned in a high tower, and being debarred the use of ink, he had no other means of correspondence, but by writing his letters in cherry juice, and throwing them into the river which surrounded the tower, where the Princess received them in a boat. There existed, of course, no tower, no imprisonment, no writing in cher-

ry juice, no river, no boat, but the whole was the inveterate phantom of a morbid imagination. I immediately," continued lord Mansfield, "directed Dr. Munro to be acquitted, but this man, Wood, being a merchant in Philpot-lane, and having been carried through the city, on his way to the mad-house, indicted Dr. Munro over again, for the trespass and imprisonment in London, knowing that he had lost his cause by speaking of the Princess at Westminster, and such," said lord Mansfield, "is the extraordinary subtlety and cunning of mad-men, that when he was cross-examined on the trial in London, as he had successfully been before, in order to expose his madness, all the ingenuity of the bar, and all the authority of the court, could not make him say a single syllable upon that topic, which had put an end to the indictment before, although he had still the same indelible impression upon his mind, as he had signified to those who were near him : but conscious that the delusion had occasioned his defeat at Westminster, he obstinately persisted in holding it back ".*

Some directions as to the best method of detecting concealed insanity, may readily be drawn from the above narratives, but the subject is in itself a very difficult one. The medical witness in these cases, has to decide—not whether a person is actually or feignedly insane for the first time in his life, but whether there is such a recovery from madness as to entitle him to the appellation of a sane man.

The nurses, attendants and physicians who have had the care of him, are the proper persons to testify

* This evidence at Westminster was then proved against him by the short hand writer. Lord Eldon, since he has been lord chancellor, has mentioned from the bench, a case which occurred to him while at the bar, also illustrative of the difficulty that occurs in such cases. After repeated conferences, and much conversation with a lunatic, he was persuaded of the soundness of his understanding, and prevailed on lord Thurlow to supersede the commission. The lunatic however, immediately afterwards calling on his counsel to thank him for his exertions, convinced him in five minutes, that the worst thing that he could have done for his client, was to get rid of the commission. Vesey junr's Reports, vol. 11, p. 11. *Ex parte* Holyland.

concerning his state. Notwithstanding all the efforts, all the cunning and dissimulation which may be exercised, there are moments, when the ruling malady breaks forth, and it will most readily be noticed, by those who have previously watched him. And if his eye at these moments, “meets that which has so often checked his vacillatory emotions—the instant of such a meeting is the instant of self correction, of silence, or of sudden order and surprising self possession.”*

It must also be remembered, that those who are insane on particular subjects, will reason correctly on ordinary and trivial points, *provided they do not become associated with the prevailing notions which constitute their insanity.*† And this circumstance is very apt to become a source of error, since unobservant persons will be readily deceived by this temporary display of rational discourse, and form a hasty conclusion. Hence the importance of continued examination. At the commencement of an interview, it may be all calmness and apparent rationality—yet when least expected, the disorder breaks forth, and in many instances, there seems to be no cause for this conversion from apparent sanity to evident derangement. Even when placed in the society of other mad-men, he is capable of detecting their folly and aberration from reason, and will endeavour to convince them of the absurdity of their prevailing opinions, “yet in a moment, his mind launches into the regions of fiction, its admired clearness becomes obscured, and its seeming regularity exhibits a confused assemblage, or violent distortion. There is no intermediate condition which separates these states, and the transition very much resembles the last connected

* Hill, p. 397. This circumstance may also be applied to the detection of feigned lunatics. “All such, upon seeing the person whom they know has been long accustomed to the management or cure of lunatics, become ten-fold more foolish, boisterous or unmanageable than before, in order to impress the minds of the beholders with awful ideas of their very alarming or pitiable state, but their detection and exposure is the sure result of diligent inquiry.”

† Haslam's Med. Jurisprudence of Insanity, p. 295.

glimpses of our waking thoughts, followed by the abrupt creation of a dream.”*

To conclude then on this point, the examiner must have sufficient time allowed him, and he should not be interrupted during it. The subtlety of the patient should be recollected, and his artful concealment of his real opinions. And these should not be directly commenced with, as subjects of discussion, since he would soon perceive the drift of the enquiries, and endeavour to evade, or pretend to disown them. “The purpose is more effectually answered by leading him to the origin of his distemper, and tracing down the consecutive series of his actions and association of ideas. In going over the road where he has once stumbled, he will infallibly trip again.”†

3. *Of the legal definition of a state of mental alienation, and the adjudications under it.*

The common law of England on the subject before us, is thus expounded by Blackstone: “An idiot, or natural fool,” says he, “is one that hath no understanding from his nativity, and therefore is by law presumed as never likely to obtain any.” But a man is not an idiot, if he hath any glimmering of reason, so that he can tell his parents, his age, or the like common matters.‡ Over individuals of this description, the king is appointed guardian, and the lord chancellor acts under his authority, as the conservator of their property. He also is to provide for them, and at their death, renders their estates to their heirs.

“A lunatic, or *non compos mentis*, is one who hath had understanding, but by disease, grief, or other accident, hath lost the use of his reason. A lunatic is indeed properly one that hath *lucid intervals*; sometimes enjoying his senses and sometimes not, and that frequently depending upon the change of the

* Haslam's Med. Jurisprudence of Insanity, p. 296.

† Ibid. p. 331.

‡ Blackstone's Commentaries, vol. 1, p. 302, 304.

moon. But under the general name of *non compos mentis*, (which, Sir Edward Coke says, is the most legal name) are comprised not only lunatics, but persons under frenzies, or who lose their intellects by disease ; those that *grow* deaf, dumb and blind, not being *born* so ; or such, in short, as are judged by the court of chancery incapable of conducting their own affairs.”* Over such, the crown is also guardian, but in a different manner, as the law supposes that these accidental misfortunes may be removed, and therefore he or his special delegate, the lord chancellor, acts only as a trustee, and preserves the property for the use of the insane person, until he be restored to reason.

The methods of proving a person an idiot, or *non compos*, are, in every important particular, alike. But in the former, a writ is issued to inquire into the state of the person’s mind, and the question of idiocy is tried before the escheator or sheriff, by a jury of twelve men—while the latter has, of late years, been examined by a commission, in the nature of the writ de *idiotia inquirendo*, and a jury is summoned by the persons appointed commissioners.† If the result of the commission be a return, that the individual is a lunatic, he is then committed to the care of tutors or guardians, who are styled his *committee*.

Should the individual recover his state of sound mind, the chancellor must be petitioned to supersede the commission ; and on the hearing of this, the individual should attend, that he may be inspected in person, and it is also usual for the physician to attend, or to make an affidavit, *that he is perfectly recovered*.‡

These are the leading principles of the English law concerning the insane in Civil cases. I come now to notice those in force in Criminal ones.

Insanity or idiotism, excuses an individual from the

* Blackstone, vol. 1, p. 304.

† Highmore on the Law of Idiocy and Lunacy, p. 20, 21.

‡ Ibid. p. 73.

guilt of crimes, and he is not chargeable for his own acts, if committed when under these incapacities. "And if a man in his sound memory, commits a capital offence, and before arraignment for it, he becomes mad, he shall not be tried; if after he be tried and found guilty, he loses his senses before judgment, judgment shall not be pronounced; and if after judgment, he becomes of nonsane memory, execution shall be stayed. If there be any doubt whether the person be *compos* or not, this shall be tried by a jury. And if he be so found, a total idiocy, or absolute insanity, excuses from the guilt, and of course from the punishment of any criminal action committed under such deprivation of the senses: *but if a lunatic hath lucid intervals of understanding, he shall answer for what he does in those intervals, as if he had no deficiency.*"*

The law at present in force in the state of New-York, is similar in most particulars to that, just noticed. The chancellor has the care, and provides for the safe keeping of all idiots and lunatics, and of their real and personal estates, so that they and their families may be properly maintained. He is also empowered to dispose of and regulate their property under certain restrictions, and should the lunatic recover, his property is to be restored, but should the idiot or lunatic die, it goes to his heirs or next of kin.†

Two or more justices are also allowed to cause to be apprehended and kept safely in custody, any persons who by lunacy or otherwise, are furiously mad, or are so far disordered in their senses, that they may be dangerous to be permitted to go abroad. This provision does not, however, restrain or abridge the powers of the chancellor, or prevent any friend or relative of the lunatics, from taking them under their own care and protection.‡

The mode pursued of proving a person a lunatic or

* Blackstone, vol. 4, p. 24.

† Revised Laws, vol 1, p. 147.

‡ Ibid. vol. 1, p. 116.

idiot, is to make an application to the chancellor, who appoints commissioners to enquire into the fact, and they summon a jury to try it, and by their verdict he is guided. He may, however, and has directed an issue to try the allegation of lunacy in the circuit court.*

On the petition of a lunatic to supersede the commission, it may either be referred to a master, to take proof thereon, and examine the lunatic, and to report the proofs and his opinion—or the lunatic is directed to attend in court, to be examined by the chancellor.†

In other states, where no separate equity jurisdiction exists, the examination and guardianship of these individuals, is usually confided to high judicial tribunals, or to officers specially appointed for that purpose.

The common law of England is, however, generally the guide by which civil and criminal cases are decided in this country. It is the basis on which our statute laws are founded, and it is hence important, that its peculiarities be distinctly understood.

The most striking of these is the distinction that exists between the law in civil, and in criminal cases. If a lunatic be *perfectly recovered*, and not otherwise, his property is to be restored to him. But in criminal cases, if he exhibit a *lucid interval* of understanding, he may be punished for acts committed during its presence, in the same manner as a sane person is punished. It will hence be proper to offer a few remarks on what is understood, by a lucid interval.

The term itself is, with great appearance of probability, supposed by Dr. Haslam to be connected with, and originate from, the ancient theory on the subject of *lunacy*. The patient became insane, as was supposed, at particular changes of the moon, and the inference was natural, that in the intervening spaces of

* See, In the matter of Wendell, a lunatic, Johnson's Chancery Reports, vol. 1, p. 600.

† In the matter of Hanks, a lunatic, *ibid.* vol. 3, p. 567.

time, he would be rational.* This, however, is an opinion long since abandoned. Observers have repeatedly noticed, that the access of the paroxysms has no connection with the phænomenon in question; and our author expressly states, that he kept an exact register for more than two years, but without finding in any instance that the aberrations of the human intellect corresponded with, or were influenced by, the vicissitudes of the moon. Esquirol states, that in respect to lunar influence, he cannot confirm the long prevalent opinion. The insane, he adds, are certainly more agitated about the full moon, but so are they about day-break every morning. Hence he conceives the *light* to be the cause of the increased excitement at both these periods. Light, he asserts, frightens some lunatics, pleases others, but agitates all.†

If then the theory on which the term is founded, and the practical deduction from it, are both incorrect, what are we to understand by the term itself at the present day, in legal proceedings? I answer this by some quotations from the writings of distinguished advocates and enlightened physicians.

D'Aguesseau, one of the greatest names in French jurisprudence, thus defines it: "It must not be a superficial tranquility, a shadow of repose, but on the contrary, a profound tranquility, a real repose; it must be, not a mere ray of reason, which only makes its absence more apparent when it is gone—not a flash of lightning, which pierces through the darkness only to render it more gloomy and dismal—not a glimmering which unites the night to the day; but a perfect light, a lively and continued lustre, a full and entire day, interposed between the two separate nights, of the fury which precedes and follows it; and to use another image, it is not a deceitful and faithless stillness which follows or forebodes a storm, but a sure and steadfast tranquility for a time, a real calm, a

* Haslam on Madness, p. 214.

† Medico-Chirurg. Review, vol. 1, p. 251.

perfect serenity ; in fine, without looking for so many metaphors to represent our idea, it must be not a mere diminution, a remission of the complaint, but a kind of temporary cure, an intermission so clearly marked, as in every respect to resemble the restoration of health : so much for its *nature*.

“ And as it is impossible to judge in a moment of the quality of an interval, it is requisite that there should be a sufficient length of time for giving a perfect assurance of the temporary re-establishment of reason, which it is not possible to define in general, and which depends upon the different kinds of fury, but it is certain there must be a time, and a considerable time : so much for its *duration*.”*

“ To determine the existence of a lucid interval, in insanity,” says Percival, “ the testimony of a physician is sometimes required in courts of law. The complete remission of madness is only to be decided by reiterated and attentive observation. Every action, and even gesture of the patient, should be sedulously watched ; and he should be drawn into conversations at different times, that may insensibly lead him to develop the false impressions under which he labours. He should also be employed occasionally in business, or offices connected with, or likely to renew his wrong associations. If these trials produce no recurrence of insanity, he may, with full assurance, be regarded as legally *compos mentis* during such period, even though he should relapse a short time afterwards into his former malady.”†

“ I should define,” says Haslam, “ a *lucid interval* to be a complete recovery of the patient’s intellects, ascertained by repeated examinations of his conversation, and by constant observation of his conduct, for a time sufficient to enable the superintendent to form a correct judgment. If the person who is to examine the state of the patient’s mind, be unacquainted with

* Highmore on the Law of Idiocy and Lunacy, p. 6.

† Percival’s Medical Ethics, p. 214.

his peculiar opinions, he may be easily deceived, because, wanting this information, he will have no clue to direct his inquiries, and mad-men do not always, nor immediately intrude their incoherent notions; they have sometimes such a high degree of control over their minds, that when they have any particular purpose to carry, they will affect to renounce those opinions which shall have been judged inconsistent; *and it is well known that they have often dissembled their resentment, until a favourable opportunity has occurred of gratifying their revenge.*"*

Lord Thurlow has also, with great clearness, stated *what should be the state present to constitute an actual lucid interval*. "By a perfect interval," says he, "I do not mean a cooler moment, an abatement of pain or violence, or of a higher state of torture—a mind relieved from excessive pressure; but an interval in which the mind, having thrown off the disease, had recovered its general habit."

"The burthen of proof," he adds, "attaches on the party alledging such lucid intervals, who must show sanity and competence at the period when the act was done, and to which the lucid interval refers, and it is certainly of equal importance that the evidence in support of the allegation of a lucid interval, after derangement at any period has been established, should be as strong and demonstrative of such fact, as where the object of the proof is to establish derangement. The evidence in such a case, applying to stated intervals, ought to go to the state and habit of the person, and not to the accidental interview of any individual, or to the degree of self-possession in any particular act."†

* Haslam on Madness, p. 46 and 52.

† Brown's Chancery Cases, vol. 3, p. 443, 444. The Attorney General v. Parnter. Lord Eldon has, however, intimated his disagreement with Lord Thurlow's proposition. *Ex parte Holyland*, Vesey's Reports, vol. 11, p. 10. And in a late trial (July 20, 1822,) in chancery, he has still more openly avowed his opposition to it. The following are stated to have been his words: "With regard to what might be a lucid interval, it was a point of some difficulty. He could never go the length of Lord Thurlow in the case of Barker. (This is the case quoted above, Attorney General v. Par-

Such then is the meaning of the term *lucid interval* in civil cases, but its signification is narrowed down in criminal ones. Lord Hale, with reference to these, makes a distinction between total and partial insanity; by the first, he understands a perfect form of the disease, and by the last, the presence of so much reason and understanding as will make the individual accountable for his actions. It is allowed by all commentators, "that the line which divides them is invisible, and cannot be defined; yet one or other of these states must be collected from the circumstances of each particular case, duly to be weighed by the judge and jury."† Sir Vicary Gibbs, when attorney general of

ther.) That noble lord was of opinion, that if the existence of insanity was once established, the evidence of a lucid interval ought to be as clear as the evidence in support of the lunacy. He remembered putting the matter thus to Lord Thurlow: 'I have seen you exercising the duties of lord chancellor with ample sufficiency of mind and understanding, and with the greatest ability. Now if Providence should afflict you with a fever, which should have the effect of taking away that sanity of mind for a considerable time, (for it does not signify whether it is the disease insanity, or a fever that makes you insane,) would any one say that it required such very strong evidence to show that your mind was restored to the power of performing such an act as making a will—an act, to the performance of which a person of ordinary intelligence is competent?' His lordship observed upon the case of Mr. Cogland: he was a person who lived in Prince's-street, Oxford-road, and a fire happening in his house, he was taken out of a two pair of stairs window: it had such an effect upon him, that he became insane. He afterwards made his will in a house kept by a person who had the care of lunatics. His will was precisely according to what he had previously told Mr. Winter, the Bank solicitor, he had intended to make. He had stated to him what provisions he had made, and what he intended to make, and his will was in conformity with what he had so stated of his ideas of justice. The will was contested, on the ground that it was not made during a lucid interval; but the delegates were of opinion, that as it was a will affecting the very purposes he had before expressed, it was a good will—for these reasons, he could not agree in the doctrine of Lord Thurlow." *In the matter of Parkinson, a lunatic.* (Albion newspaper of the 7th of Sept. 1822, extracted from an English paper.) In the course of the pleadings, it was mentioned that Dr. Powell, an eminent physician in London, and for many years secretary to the commissioners for licensing mad-houses, held *there was no such thing as a lucid interval*, (in the ordinary acceptation of the term, I presume.) Dr. Powell probably holds the same opinion that Dr. Haslam does.

† Collinson on Lunacy, vol. 1, p. 475. In the case of Hadfield, who was tried, in 1800, for shooting at the King in Drury-lane theatre, it appeared that he was insane the day previous—that this insanity had been of some years standing, owing to an injury of the head; and Lord Kenyon held, that as he was deranged immediately before the offence was committed, it was improbable that he had recovered his senses in the interim; *and although, were they to run into nicety, proof might be demanded of his insanity at the precise moment when the act was committed*, yet there being no reason for believing him to have been at that period, a rational and accountable being, he ought to be acquitted; and the jury accordingly acquitted him. *Ibid.* vol. 1, p. 488

England, and trying Bellingham for the murder of the Hon. Spencer Percival, used the following language : " A man may be deranged in his mind—his intellects may be insufficient for enabling him to conduct the common affairs of life, such as disposing of his property, or judging of the claims which his respective relations have upon him ; and if he be so, the administration of the country will take his affairs into their management, and appoint to him trustees ; but at the same time, such a man is not discharged from his responsibility for criminal acts. I say this upon the authority of the first sages in this country, and upon the authority of the established law in all times, which law has never been questioned, that although a man be incapable of conducting his own affairs, he may still be answerable for his criminal acts, *if he possess a mind capable of distinguishing right from wrong.*"*

Lord Chief Justice Mansfield, in his charge to the jury on the same trial, observed that " there were various species of insanity. Some human beings were void of all power of reasoning from their birth ; such could not be guilty of any crime. There was another species of madness, in which persons were subject to temporary paroxysms, in which they were guilty of acts of extravagance : this was called lunacy. If these persons were to commit a crime when they were not affected with the malady, they would be, to all intents and purposes, amenable to justice. So long as they could distinguish good from evil, so long would they be answerable for their conduct. *There was a third species of insanity*, in which the patient fancied the existence of injury, and sought an opportunity of gratifying revenge by some hostile act. If such a person were capable, in other respects, of distinguishing right from wrong, there was no excuse for any act of atrocity which he might commit under this description of derangement."†

* Collinson on Lunacy, vol. 1, p. 657.

† Ibid. vol. 1, p. 672.

By these principles the criminal jurisprudence of England and this country has been guided, and decisions conformable to them have repeatedly been made.† They are doubtless correct, and conducive to the ends of justice, but it is to be feared, that cases may sometimes occur, in which the dividing line between sanity and insanity may be overleaped, in the ardour to punish a foul homicide. The form of insanity which most commonly leads to the perpetration of this enormity, is one that assists in increasing the difficulty. It is that of melancholy, where the mind broods over a single idea, and that idea may be his own destruction, or the destruction of others.

But this subject is enveloped in insuperable difficulties. What can be more alike, than the anger of the sane and the insane? What a similitude between the maniac and the habitually passionate—between the melancholic, and him who habitually broods over his malignant and revengeful conceptions. In fine, if madness were not stamped on its front, would not the following be ranked among the foulest and most deliberate murders? It is taken from the mouth of the maniac himself, as stated to Dr. Haslam. “The man whom I stabbed, richly deserved it. He behaved to me with great violence and cruelty; he degraded my nature as a human being; he tied me down, handcuffed me, and confined my hands much

† As in the case of Earl Ferrers, who was tried before the House of Lords in 1760, for the murder of Mr. Johnson, his steward. It was proved that his lordship was occasionally insane, and incapable, from his insanity, of knowing what he did, and of judging of the consequences of his actions. He had harboured enmity against Johnson for some time, but dissembled it, so that it was not suspected, or at least was supposed to have been forgotten. Johnson waited on him by appointment, and when alone in the room with the earl, the latter with great deliberation told him his time was come, and taking a pistol, inflicted the mortal wound. A verdict of guilty was found in this case, and the earl was executed. *Hargrave's State Trials*, vol. 10, p. 478.—So also in the case of Edward Arnold, who was indicted for maliciously shooting at Lord Onslow. He had for years harboured an idea that Lord Onslow was an enemy to him, and in consequence had formed a regular steady design to murder him, and had prepared the proper means for carrying this into effect. And yet there was no doubt but that, to a certain extent, he was deranged. He also was found guilty, but at Lord Onslow's request, he was reprieved, and confined in prison thirty years, till he died. *Collinson on Lunacy*, vol. 1, p. 476.

higher than my head, with a leathern thong; he stretched me on a bed of torture. After some days, he released me. I gave him warning, for I told his wife I would have justice of him. On her communicating this to him, he came to me in a furious passion, threw me down, dragged me through the court-yard, thumped me on my breast, and confined me in a dark and damp cell. Not liking this situation, I was induced to play the hypocrite. I pretended extreme sorrow for having threatened him, and by an affectation of repentance, prevailed on him to release me. For several days I paid him great attention, and lent him every assistance. He seemed much pleased with the flattery, and became very friendly in his behavior towards me. Going one day into the kitchen, where his wife was busied, I saw a knife; (this was too great a temptation to be resisted,) I concealed it, and carried it about me. For some time afterwards, the same friendly intercourse was maintained between us, but as he was one day unlocking his garden-door, I seized the opportunity, and plunged the knife up to the hilt in his back.”*

I conclude these observations with a quotation from one of the most enlightened medical jurists in France. It deserves profound consideration. “There is no species of madness,” says Marc, “which so much deserves the attention of the physician and the jurist, as *mania without delirium*. It has brought to the scaffold many deplorable victims, who merited compassion rather than punishment. Unfortunately, I perceive no other means of ascertaining this wretched state, in which an instinct, at the same time destructive and irresistible, hurries on its victim to the commission of crimes the most abhorrent to nature, except a confinement indefinitely prolonged, during which he should be observed at those moments when he is excited by his dreadful propensity. Then, if it be real, an extreme agitation will be perceived, with

* Haslam on Madness, p. 169

flushings of the face, eyes sparkling, and perhaps also, as in cases of propensity to suicide, the most highly wrought state of hypochondriac excitement. Women are in general more subject to this species of mania than men, especially at the periods of menstruation, (and particularly when in a morbid state,) or during gestation. These different situations, then, require great consideration. *Moreover, the moral circumstances which precede or accompany crimes, generally shew whether they are the result of criminal intentions or derangement of intellect ; that is to say, that in a real criminal, there is always some motive of personal interest, by which the moral cause of his act may be known.* Thus, a homicide followed by robbery, cannot be attributed to *mania* without *delirium*.”*

4. *Of inferior degrees of diseased mind.*

There are several forms of disease, which either in a partial or temporary manner, bear a strong resemblance to insanity. The diagnostic appearances of such deserve a brief notice, accompanied with a consideration of the question, how far the mental alienation may be presumed to extend in each.

The *delirium* of fever is one of the most striking, and in its general characters usually resembles mania. It is, however, distinguished by its antecedent or accompanying disease—the sensibility of the sight and hearing—turgescence and redness of the eye—tremor of the tongue—gnashing of the teeth, and heat of the skin. It is often preceded by watchfulness and anxiety, and by a change in conversation and conduct.

Suicide and murder are often committed by persons labouring under this affection, and their actions should be estimated like those of the furious maniac.

Hypochondriasis, on the other hand, has many points of similitude to melancholy. Those who are

* Marc, in Godman's Western Reporter, vol. 2, p. 68.

affected with it, are usually of a lax fibre, and engaged in sedentary occupations. There is a languor and want of resolution that accompanies all their undertakings, and a cast of sadness and timidity generally marks the countenance. As to all future events, says Cullen in his graphic sketch of this disease, there is a constant apprehension of the worst or most unhappy state of them, and therefore there is often, upon slight grounds, an apprehension of great evil. *"Such persons are particularly attentive to the state of their own health—to every the smallest change of feeling in their bodies."* He also remarks, that hypochondriasis is always accompanied with dyspeptic symptoms, and in elucidation of the diagnosis between it and melancholy, presents the following observations: "When an anxious fear and despondency arise from a mistaken judgment with respect to other circumstances than those of health, and more especially when the person is at the same time without any dyspeptic symptoms, every one will readily allow this to be a disease widely different from both dyspepsia and hypochondriasis." "As an exquisitely melancholic temperament may induce a torpor and slowness in the action of the stomach, so it generally produces some dyspeptic symptoms; and from thence there may be some difficulty in distinguishing such a case from hypochondriasis. But I would maintain, however, that when the characters of the temperament are strongly marked, and more particularly when the false imagination turns upon other subjects than that of health, or when, though relative to the person's own body, it is of a groundless and absurd kind; then, notwithstanding the appearance of some dyspeptic symptoms, the case is still to be considered as that of a melancholy, rather than a hypochondriasis."*

Foderè mentions the following circumstances, as distinctive of these diseases. The habit of body—

* Cullen, quoted by Smith, p. 423, 424.

the illusion, as illustrated in the above quotation from Cullen, one being relative to physical subjects, and the other, to moral ones—the species of fear ; that of the melancholic being reserved and prudent, and not destructive of his courage—while that of the hypochondriac renders him credulous, variable and timid. He is in every respect selfish, while the melancholic, although labouring under the pressure of his disease, often retains noble sentiments.*

Hypochondriacs often talk of and sometimes attempt suicide, but rarely have courage enough to complete it.† They are generally aware of the nature of criminal acts, and should be judged accordingly. But it must be remembered, that this disease, as well as hysteria, when of long standing, or severe, often degenerate into insanity, and indeed are sometimes its first degree.

Hallucination. “An idea reproduced by the memory, associated and embodied by the imagination.”‡ This state of mind is styled, *illusion or waking dreams*, by Dr. Rush, and it is strikingly illustrated in the remarkable story of Nicolai, of Berlin, who for a length of time was visited at his bedside by individual forms, that were visible to his sight, and addressed him. During all this period, however, he was conscious that it was a delusion.§ Had he believed in the existence of these phantoms, says Haslam, and acted from a conviction of their reality, he ought to have been deemed insane. A more familiar illustration is given by Collinson, and I presume there are many of my readers, who at one time or another, have experienced a somewhat similar state of mind. “Ben Johnson, the celebrated dramatist, told a friend of his, that he had spent many a night in looking at his great toe, about which he had seen Turks and Tartars, Romans and Carthageni-

* Foderè, *Medicine Legale*, vol. 1, p. 232.

† Parkman.

‡ Ibid.

§ The narrative by Nicolai himself, is contained in Haslam's *Med. Jurisprudence of Insanity*, p. 303.

ans fight in his imagination."§ If this had become permanent in his mind, he would have been deemed insane.

I can hardly imagine that this form of diseased mind can ever become a subject of legal investigation, but it may be remarked, that many maniacs have hallucinations, resembling those we have noticed. They are sometimes transient and confused, and at other times, will grow permanent and fixed.*

Epilepsy. I mention this, because it is a disease that when long continued or violent, is very apt to end in dementia. It gradually destroys the memory, and impairs the intellect. Epilepsy is also sometimes complicated with mania.

Its effects should hence be noticed from time to time, as they may become a subject of examination in civil cases.

Nostalgia. This is a well known form of melancholy, originating in despair, from being separated from one's native country. I have already noticed its leading characteristics,† and will only add that suicide is sometimes a consequence. Individuals labouring under it, seldom, if ever commit violence on others.

Intoxication. It is a well known and salutary maxim in our laws, that crimes committed under the influence of intoxication, do not excuse the perpetrator from punishment. But it must also be recollected that habitual drunkenness, may induce a state of mind perfectly akin to insanity. It is in fact, one of the common causes of that disease. The partition line between intoxication and insanity may hence sometimes become a subject of discussion.

William McDonough was indicted and tried for the murder of his wife, before the supreme court of the state of Massachusetts, in November, 1817. It appeared in testimony, that several years previous, he

§ Collinson on Lunacy, vol. 1, p. 34

* Parkman.

† Vol. 1, p. 22.

had received a severe injury of the head, that although relieved of this, yet its effects were such as occasionally to render him insane. At these periods he complained greatly of his head. The use of spiritous liquors immediately induced a return of the paroxysms, and in one of them thus induced, he murdered his wife. He was with great propriety found guilty.* The *voluntary* use of a stimulus which he was well aware would disorder his mind, fully placed him under the purview of the law.

“In *Rydgeway v. Darwin*, lord Eldon cites a case, where a commission of lunacy was supported against a person, who, when sober, was a very sensible man, but being in a constant state of intoxication, he was incapable of managing his property.”†

In the state of New-York we have a statute which places the property of habitual drunkards under the care of the chancellor, in the same manner as that of lunatics. The overseers of the poor in each town may, when they discover any person to be an habitual drunkard, apply to the chancellor for the exercise of his power and jurisdiction. And in certain cases, when the person considers himself aggrieved, it may be investigated by six freeholders, whether he is actually what he is described to be, and their declaration is *prima facie* evidence of the fact.‡

The conduct of individuals of this class should be particularly noticed during the intervals of temperance, if any such exist. If spiritous liquors exercise such an influence as to render us doubtful concerning the state of mind at this time, we may reasonably infer that the alienation is becoming permanent.

Old age. It appears now to be decided, that debility of mind in consequence of old age, may render a person unfit to manage his own affairs, and his pro-

* Trial of William McDonough for the murder of his wife, &c. Second edition. Boston.

† Collinson on Lunacy, vol. 1, p. 71.

‡ Act passed March 16, 1821. There are other provisions in this act, (which however it is not necessary to quote here,) relating to the local powers of overseers in such cases.

perty may be placed in the hands of a committee, in the same manner as that of a lunatic.*

A case was decided on this principle, in the chancery court of this state some years since. An individual eighty-five years old, was seized of a large real estate, and it was alleged from repeated acts, that his imbecility of mind, (although not a lunatic) and his want of understanding were such, as to render him incapable of managing his affairs. The chancellor awarded a commission in the nature of a writ of lunacy, to enquire whether the facts were accordant to the above statement, and he also directed that the individual should be present, so that the jury might have the inspection of him. The inquisition was taken and returned, finding that J. B. was, and for one year preceding had been, of unsound mind, and mentally incapable of managing his affairs. A committee of the estate was accordingly appointed.†

It is impossible to extend this investigation into the numerous cases, which may present doubts as to the strength of mind of individuals. Every instance must be judged on its own merits; and while weakness of understanding deserves protection, it should be remembered that too nice an investigation of eccentricities and imperfections may lead to oppression and injustice.‡

5. *Of the state of mind necessary to constitute a valid will.*

Sir William Blackstone, in his introductory remarks on the study of the law, observes, that were the medical profession to inform themselves on the

* Collinson on Lunacy, vol. 1, p. 66.

† Johnson's Chancery Reports, vol. 2, p. 232. In the matter of James Barker.

‡ In the case of Lord Donegal, it was found that he was of weak understanding, although he gave rational answers about his estate, but *not to any questions about figures, as to which he could not answer the most common.* Lord Chancellor Hardwicke did not think that, a sufficient foundation to grant a commission. Vesey senior's Reports, vol. 2, p. 407.

doctrine of last wills and testaments, or at least so far as relates to the formal part of their execution, they might often use this knowledge with advantage to families, upon sudden emergencies.* Having such an authority, it will not, I trust be deemed presumptuous, if I preface the consideration of the present subject, with a brief sketch of the legal requisites for making these.

It must be noticed in the first place, that the law makes an important distinction between the disposition of personal, and of real property. This is borrowed from the English law, but it is transferred into our own statutes.

Nuncupative wills. By this term is understood a verbal disposition of a person's property, and it is enacted, that none shall be good, where the estate thereby bequeathed shall exceed the value of seventy-five dollars, unless the same be proved by the oath of three witnesses at least, who were present at the making thereof, nor unless it be proved, that the testator at the time of pronouncing the same, did bid the persons present, or some of them, bear witness, that such was his will, or words to that effect—nor unless such nuncupative will be made at the time of the last sickness of the deceased, and in his dwelling house, or where he had been resident for ten days or more, next before the making of such will, except such person was surprised or taken sick, being from home, and died before his return to the same. It is further ordained, that after six months from the speaking of the pretended testamentary words, no testimony shall be received to prove any nuncupative will, except the said testimony or the substance thereof, was committed to writing within six days after the making of the said will, and also, that no letters, testamentary or probate of any nuncupative will, shall pass the seal of any court until fourteen days, at the least, after the death of the testator shall be fully expired, nor shall any nuncupative will at any time be received to be proved,

* Blackstone's Commentaries, vol. 1, p. 13.

unless process hath first issued to call in the widow or next of kin to the deceased, to the end, that they may contest the same if they please.*

A nuncupative will, has also been decided to be not good, unless it be made when the testator is *in extremis*, or overtaken by sudden and violent sickness, and has not time to make a written will. The words, "last sickness," in the statute just quoted, are understood to mean the last extremity.†

Secondly, a person may by a will in writing, give and bequeath his personal property as he pleases, and nothing further is necessary to legalize it, except his hand writing.

Lastly. Testaments, by virtue of which, real property is devised, must be in writing and signed by the party making the same, or by some other person in his presence, or by his express direction, and they shall be attested and subscribed in the presence of such party, by three or more credible witnesses, else such last will and testament shall be utterly void.‡

We may now add, that none of these are valid in law, if made by any infant, idiot or person of insane memory. Here is the point at which the subject enters into legal medicine, and under this law, it happens that the testimony of a physician is often required.

In law, a person is considered an infant, until he arrives at the age of twenty-one, and the construction of this is, that if he is born on the first day of January, he is of age to do any legal act on the morning of the last day of December. Infants, according to the ecclesiastical or civil law, if above the age of fourteen, may, however, bequeath personal property, but no real estate. This respects males, as females may make a will of personal estate at twelve.

* Revised Laws, State of New-York, vol. 1, p. 367.

† Johnson's Reports, vol. 20, p. 502. Prince v. Hazleton. In this case the supposed nuncupative will was made several days before the death of the testator, and it did not appear that he had an idea of his dissolution being so near.

‡ Revised Laws, vol. 1, p. 364, 367.

“Mad-men, or otherwise *non-compotes*, ideots, or natural fools, persons grown childish by reason of old age or distemper, such as have their senses besotted by drunkenness—all these, are incapable, by reason of mental disability, to make any will so long as such disability lasts.”*

Among the diseases which incapacitate an individual from making a valid will, or at least render his rationality doubtful, may be enumerated the following: lethargic and comatose affections, whether arising from some internal affection, or from external injury. These suspend the action of the intellectual faculties—so also does an attack of apoplexy, and even, if patients recover from its first effects, an imbecility of mind is often left, which unfits an individual for the duty in question. Phrenitis, delirium tremens, and those inflammations which are accompanied with delirium, also impair the mind. Finally, in typhoid fevers, the low state which usually precedes death, is one that may be considered as incapacitating the individual.

On the other hand, there are many fatal diseases, in which the patient preserves his mind to the last, and all dispositions of property made by him are of course valid. Of these, none is more striking, than the clearness of intellect which sometimes attends the last stages of phthisis pulmonalis.

The symptoms—the state of the individual, his conversation and actions, should all be canvassed, and from them an opinion must be formed.†

It has been sometimes agitated whether the loss of memory solely, is such a proof of mental imbecility, as to render a will invalid. On this point, the remarks of Chancellor Kent, in a case before him, are decisive. “The failure of memory is not sufficient to create the incapacity, unless it be quite total, or extend to his immediate family. “The Roman law,” he remarks, “seemed to apply the incapacity only to

* Blackstone, vol. 2, p. 497.

† Foderè, *Medicine Legale*, vol. 1, p. 261.

an extreme failure of memory, as for a man to forget his own name, *fatuus præsumitur qui in proprio nomine errat*. The want of recollection of names is one of the earliest symptoms of a decay of the memory, but this failure may exist to a very great degree, and yet "the solid power of the understanding" remain."*

As to the mode of proving whether an individual is competent to make a will, this of course, must be according to the ordinary rules of evidence. A testator is always deemed sane, until the contrary is proved, and the *onus probandi* as to his mental incapacity, lies on the party who alleges his insanity. But if a mental derangement has been proved, it is then incumbent on the devisee to show a lucid interval, or the sanity of the testator at the time of executing the will.†

An extraordinary case was tried in 1762, in the King's Bench in England, where the three surviving witnesses to the testator's will, and the two surviving ones to a codicil made four years subsequent to the will, and a dozen servants of the testator, all unanimously swore him to be utterly incapable of making a will, or transacting any other business, at the time of making the supposed will and codicil, or at any intermediate time. To encounter this evidence, the council for the plaintiff examined several of the nobility and principal gentry of the county of Worcester, who frequently and familiarly conversed with the testator, during that whole period, and some on the day whereon the will was made, and also two eminent physicians, who occasionally attended him and who all strongly deposed to the entire sanity and more than ordinary vigour of the testator. Other testimony corroborative of this, was adduced; the validity of the will was established, and subsequently several of

* Johnson's Chancery Reports, vol. 5, p. 161. Van Alst v. Hunter.

† Johnson's Reports, vol. 5, p. 144. Jackson ex dem Van Duzen and others v. Van Duzen.

the defendant's witnesses were tried and convicted of perjury.*

6. *Of the deaf and dumb—their capacity, and the morality of their actions.*

On this subject, little can be found in our jurisprudence; but the general rule deducible from adjudications, both in civil and criminal cases is, that they must be judged of according to the intelligence and knowledge they are known to possess. A deaf and dumb person, educated at the present day under Sicard or Braidwood, or in one of the establishments of our own country, may certainly be deemed to understand the morality of actions much better than one who has never had that advantage, and he accordingly would more readily be put in possession of his civil rights, or be punished for any offence against the laws.†

A person born deaf and dumb is competent as a witness, provided he evinces sufficient understanding. This was decided in the following case :

At the Old Bailey, January sessions, in 1786, on the trial of William Bartlett for simple grand larceny, John Ruston, a man deaf and dumb from his birth, was produced as a witness on the part of the crown. Martha Ruston, his sister, being examined on the *voir dire*, it appeared that she and her brother had been, for a series of years, enabled to understand each other by means of certain arbitrary signs and motions, which time and necessity had invented between them. She acknowledged that these signs and motions were not significant of letters, syllables, words or sentences; but were expressive of general propositions and entire conceptions of the mind, and the subjects

* Sir Wm. Blackstone's Reports, vol. 1, p. 365. *Lowe v. Joliffe*.

† "A person born *deaf, dumb and blind*, is looked upon by the law as in the same state with an idiot, he being supposed incapable of any understanding, as wanting all those senses which furnish the human mind with ideas." But if he *grow* deaf, dumb and blind, not being *born so*, he is deemed *non compos mentis*, and the same rule applies to him, as to other persons supposed to be lunatics. Blackstone, vol. 1, p. 304

of their conversation had in general been confined to the domestic concerns and familiar occurrences of life. She believed, however, that her brother had a perfect knowledge of the tenets of Christianity, and was certain that she could communicate to him true notions of the moral and religious nature of an oath, and of the temporal dangers of perjury.

It was objected by the prisoner's counsel, that although these modes of conveying intelligence, might be capable of impressing the mind with some simple ideas of the existence of a God, and of a future state of rewards and punishments, yet they were utterly incapable of communicating any perfect notions of the vast and complicated system of the Christian religion, and thence the witness could not with propriety be sworn upon the holy gospels. The difficulty of arraigning a man for perjury, whom the law presumes to be an idiot, and who is consequently incapable of being instructed in the nature of the proceedings against him, was also urged against the admissibility of the witness.

But the court overruled the objection, and John Ruston was sworn to depose "the truth;" and Martha Ruston, "well and truly to interpret to John Ruston, a witness here produced in behalf of the King against William Bartlett, now a prisoner at the bar, the questions and demands made by the court to the said John Ruston, and his answers made to them." The prisoner was found guilty, and received sentence of transportation for seven years.*

The deaf and dumb are also allowed to obtain possession of their real estate, if they show sufficient understanding. A female so situated, on attaining the age of twenty-one, applied to Lord Hardwicke (1754) for this purpose. Having put questions to the

* Phillips' Law of Evidence, p. 14. Lawyers' Magazine, vol. 2, p. 310. I am informed, that a case precisely similar occurred some years since in Connecticut.

party in writing, and she having given sensible answers thereto in writing, the same was ordered.*

As to criminal cases, the following may be cited : A deaf and dumb person was indicted for larceny in Massachusetts, and being set to the bar for his arraignment, the solicitor general suggested to the court that he was deaf and dumb, but that the evidence would prove him of sufficient capacity to be a proper subject for a criminal prosecution, and that he had formerly been convicted of larceny, and he moved that one *Nelson* then in court, and an acquaintance of the prisoner, should be sworn to interpret the indictment to him, as it should be read by the clerk. The indictment was accordingly read by a sentence at a time, and Nelson, having been sworn, explained its purport to him, making signs with his fingers. After which, the court ordered the trial to proceed, as on a plea of not guilty.†

A very curious case came before the court of judicary in Scotland, on the first of July, 1807. The prisoner, Jean Campbell, alias Bruce, was charged with murdering her child, by throwing it over the old bridge of Glasgow. Mr. McNeil, her counsel, stated an objection against her going to trial, on the ground of her being deaf and dumb from her infancy, and that he was totally unable to get any information from her to conduct her defence.

Mr. Drummond, counsel for the crown, now gave in a minute, stating that he was satisfied of the prisoner's being deaf and dumb from her infancy, but he offered to prove that she was capable of distinguishing betwixt right and wrong, and was sensible that punishment followed the commission of crime.

He then called the following witnesses :—

Thos. Sibbald, keeper of the gaol. Prisoner has

* *Dickenson v. Blisset*—1 *Dickens' Reports*, p. 268. See also on this subject generally, *Johnson's Chancery Reports*, vol. 4, p. 441—*Brower v. Fisher*.

† *Massachusetts' Reports*, vol. 14, p. 207. *Commonwealth v. Timothy Hill*

been two months in the gaol of Edinburgh; conducted herself rationally; made signs to the turnkey of a certain description when she wanted any thing, and when the articles were brought her she seemed satisfied; he has also seen her make signs to himself, as if taking something out of her breast and counting it with her hands; and that when she came first into prison, she clasped her hands together and made a sign as if something had fallen from her back, and seemed to indicate distress of mind; that he has seen her weep while in prison; and upon certain kinds of food having been brought to her, he has observed her express herself as if satisfied; and when she was weeping, as before mentioned, she made the same signals as if something had fallen from her back.

Robert Kinniburgh, teacher of the Deaf and Dumb Institution, deposed, that he had seen the prisoner once in the gaol at Glasgow, and repeatedly in the gaol of Edinburgh; that he has had communication with her by means of signs; in general he understood her, but in particular instances he did not; that she, by her signs, communicated to him the circumstances which took place relative to her child; that the death of her child was altogether accidental, and that when it happened, she was intoxicated; that she communicated to him, that upon that occasion the child was upon her back, covered with her petticoat and duffle cloak: and as he understood her, she had held them together upon her breast with her hand, while she rested the child upon the parapet of the bridge, over which the child fell while she was in the act of putting her hand in her breast, where she had money, and which she was afraid was lost, and by so putting her hand in her breast he understood she had lost hold of her child, at which time the child was asleep, and had then fallen over the bridge. She communicated to the witness, that before the act, she had that day drank eight glasses of spirits. That his communications with the prisoner chiefly turned upon the

accident, and that she seemed to understand him about as much as he understood her ; that is, in general, but upon some particular occasions she did not ; that she can make the initial letters of her name, but inverts them, C. J. ; and when she does so, points to herself, which leads him to think she understands them ; that she makes two or three other letters, but is not sure if they denote her children or not. He understood from her that she had three children, and that the one the accident happened to was one of them ; that he rather suspected she was not married, as the children were to different individuals ; that as far as the communications could take place betwixt him and the prisoner, she is a woman of strong powers of mind ; that nothing appears to have been wanting, humanly speaking, to have saved her from the pitch of depravity she appears to have attained, but some hand to have opened for her the treasures of knowledge in proper time ; that he conceives that the prisoner must be possessed of the power of conscience in a certain degree, and that she seems a woman of strong natural affection towards her children, as he was informed by persons at Glasgow ; and which she manifested by the indignant denial of the charges of having wilfully killed her child, and her immediate assertion that it lost its life by accident ; as well as from observations he has made as to the state of mind of other uneducated deaf and dumb persons ; and particularly in one instance, in the report of the Institution for 1815, page 54, he is of opinion, that if not blunted by intoxication, these feelings must have convinced her of the criminality of bereaving her child of life. That in his communications with the prisoner, he was satisfied she was sensible of the criminality of theft, but he cannot say any thing as to the abstract crime of murder in general. That she communicated to the witness her indignation at the fathers of her children for the way they had used her, and one of whom she has sometimes represented as her husband. That sometimes he could not under-

stand whether she understood the ceremony of marriage or not, or sometimes wished to evade the questions, or did not understand them ; that he has seen her use the form of a ring as a token of marriage ; and she made signs that that had been taken away by the man she called her husband ; that is to say, that the marriage had been dissolved by him, and he had taken another wife. That from what he saw of her at Glasgow, as well as what he observed in the gaol of Edinburgh, he is convinced she was aware that she was to be brought at Glasgow before a court of justice, and that he was confirmed in this from his having a conversation with a woman there, who seemed to understand her signs perfectly well in general ; and who mentioned to him that she had made signs to her with regard to the dress of the judges ; that he understood that she connected the death of her child with her appearance in court. (Being interrogated by the court whether he is of opinion that the prisoner could be made to understand the question, whether she is guilty or not guilty of the crime of which she is accused?) Answers—that from the way in which he would put it, by asking her by signs, whether she threw her child over the bridge or not? he thinks she could plead not guilty by signs, as she has always communicated to him, and this is the only way in which he can so put the question to her ; but he has no idea, abstractedly speaking, that she knows what a trial is, but that she knows she is brought into court about her child. That she has no idea of religion, although he has seen her point as if to a Supreme Being above ; and communicates merely by natural signs, but not upon any system ; that he could not obtain from her information where her supposed husband is, or what was his name ; neither could she communicate by natural signs any particular place, unless he had been at that place with her before, or had some mark for it ; and that she could not communicate to him about any person unless there was some sign by which he could bring that individ-

ual to her recollection, or had been seen together in certain circumstances ; that in referring to the accident, the prisoner communicates that there was a baker's boy near her who heard the child plunge into the water and gave the alarm, and that upon this she laid her hands upon the ears of her little boy near her, but for what purpose he cannot say, unless to prevent him from crying out.

Here the court expressed a wish to see Mr. Kinniburgh put the question to the witness in open court, and she answered by signs in the same manner as he had described.

The Lord Justice Clerk thanked Mr. Kinniburgh for his attention, and the assistance the court had derived from his professional skill.

Dr. William Farquharson stated, that he twice visited the prisoner in the gaol of Edinburgh ; on the first occasion alone, and on the second, along with Mr. Kinniburgh and another gentleman : that she fully satisfied him that she was not feigning to be deaf and dumb : and that when he first saw her, she did not seem to understand his signs so well as after being visited by Mr. Kinniburgh ; and the witness made that observation to Mr. Kinniburgh himself : that he had communications the first time with her as to the loss of her child, and used signs in regard to a child then in prison, as if throwing it away ; upon which she made the same signs as to the accident, as she has now done to Mr. Kinniburgh in presence of the court : that she appeared to the witness to know as little of the distinction between right and wrong, as a child of six months old ; and that she did not appear to be conscious of having done any thing wrong whatever in regard to the child : that in giving the above opinion, he has formed it from the facts of the prisoner having been both deaf and dumb, and having received no education whatever.

John Wood, Esq. auditor of excise, [who is deaf and partially dumb,] gave in a written statement upon oath, mentioning that he had visited the prisoner in

prison, and was of opinion that she was altogether incapable of pleading guilty or not guilty: that she stated the circumstances by signs, in the same manner she had done to the court, and seemed to be sensible that punishment would follow the commission of a crime.

The court were unanimously of opinion, that this novel and important question, of which no precedent appeared in the law of this country, deserved grave consideration, and every information the counsel on each side could procure and furnish.

The court then ordered informations on each side to be prepared and printed.

At a subsequent period, the judges delivered their opinion as follows:

“ Lord Hermand was of opinion, that the panel [prisoner] was not a fit object of trial. She was deaf and dumb from her infancy—had had no instruction whatever—was unable to give information to her counsel—to communicate the names of her exculpatory witnesses, if she had any, and was unable to plead to the indictment in any way whatever, except by certain signs, which he considered in point of law to be no pleading whatever.

“ Lords Justice Clerk, Gillies, Pitmilley and Reston, were of a different opinion. From the evidence of Mr. Kinniburgh and Mr. Wood, they were of opinion that the panel was *doli capax quoad* the actual crime she was charged with. It was true that this was a new case in Scotland, but in England a case of a similar nature had occurred. One Jones was arraigned at the Old Bailey in 1773, for stealing five guineas. He appeared to be deaf and dumb; a jury was impanelled to try whether he wilfully stood mute, or from the visitation of God: they returned a verdict, ‘from the visitation of God’—and it having appeared that the prisoner had been in the use of holding conversation by means of signs, with a woman of the name of Fanny Lazarus, she was sworn an interpreter. He was tried, convicted, and trans-

ported. In the present case, the panel had described to Mr. Kinniburgh most minutely the manner in which the accident had happened to her child; and from the indignant way in which she rejected the assertion that she had thrown it over the bridge, it was evident she was sensible that to murder it was a crime. It was also observed by Lord Reston, that it would be an act of justice towards the panel herself, to bring her to trial; for if the court found she was a perfect *non-entity*, and could not be tried for a crime, it followed as a natural consequence, that the unhappy woman would be confined for life; whereas if she was brought to trial, and it turned out that the accident occurred in the way she described it, she would immediately be set at liberty. The court found her a fit object for trial.”*

There are several points connected with the subject of mental alienation, which properly belong to MEDICAL POLICE. Of this nature are the general causes, and the possibility of their removal—the treatment the insane should receive, and the care that the government should bestow on their safe-keeping.†

* The first part of this case, I have taken from an English newspaper, and the opinion of the judges, from Smith's Forensic Medicine, p. 430.

† It will be observed that I have not noticed the subject of suicide in this chapter. Whether this is or is not a proof of insanity, is a question which fortunately never comes before our coroner's juries. We do not war on the dead body in this country.





INDEX TO LAW CASES.

A.

Page.

Aiscough. <i>ex parte</i>	105
Alsop v. Bowtrell (Andrews' case)	302
Angus, Charles, case of	145, 214 II. 234
Annesley cause	117
Arnold's case	370
Attorney General v. Parnter	367

B.

Banbury Peerage case	51
Barker, James, in the matter of	377
Baronet's case	331
Beddingfield's case	II. 49
Bellingham's case	369
Benson v. Oliver	325
Berard, Catherine, case of	301
Blisset, Dickenson v.	384
Blandy, Miss, case of	II. 230
Boughton, Sir Theodosius, case of	II. 412
Bound. King v.	II. 31
Bowtrell, Alsop v.	302
Brazier's case	89
Brower v. Fisher	384
Brown, Martha, in the matter of, <i>ex parte</i> Wallop	105
Bunel's case	133
Burns, Miss, case of	145, 214 II. 234
Bury's case	46
Butterfield's case	II. 275

C.

Calas' case	II. 43
Campbell, Jean, (alias Jean Bruce) case of	384
Carrol's case	II. 126
Clench Dr. murder of	II. 48
Clerk, Queen v.	II. 31
Codd and Pizzy's case	278
Coke and Woodburne's case	II. 125
Commonwealth v. Hill	384
Commonwealth v. Taylor	219
Commonwealth v. Thompson	II. 388
Cook, Foster and others v.	302
Cowper, Spencer, case of	II. 64

	<i>Page.</i>
D.	
De Caille's case	330
Denton's case	II. 119
Deplock, Taylor and others v	318
Dickenson v. Blisset	384
Dixon v. Dixon	326
Dobie v. Richardson	178
Doe v. Jesson	326
Donegall, Lord, case of	377
Donellan, Captain, case of	II. 412
Donnal's case	II. 205, 215
Douglas' cause	327
Downing, Mrs. case of	II. 205, 215
E.	
Essex, Countess of, v. Earl of Essex	45
Essex, Earl of, case	II. 79
F.	
Fenning, Eliza, case of	II. 239
Ferrers, Earl, case of	370
Fish v. Palmer	177
Fisher, Brower v.	384
Foster and others v. Cook	302
G.	
Gloucester, case of the Countess of	302
Godfrey, Sir E. murder of	II. 45
Goodere, Sir John Dinely, murder of	II. 49
Guerre, Martin, case of	328
H.	
Hadfield's case	368
Hanks, a lunatic, in the matter of	364
Hazleton, Prince v.	379
Hill, Commonwealth v.	384
Hill's case	96
Holmden, Lomax v.	50
Holyland <i>ex parte</i>	359, 367
Hunter, Van Alst v.	381
J.	
Jesson, Doe v.	326
Jackson <i>ex dem.</i> Van Duzen and others v. Van Duzen	381
Jolliffe, Lowe v.	331

K.

Page.

Kesler's case	II.	239
King v. Bound	II.	31
King v. Luffe		50
King v. Salisbury	II.	120
King v. Travers		88
Koningsmark, Count, murder of	II.	120

L.

Lavalley's case	II.	361
Lomax v. Holmden		50
Lowe v. Joliffe		381
Luffe, King v.		51

M.

Mason v. Mason		322
M'Comb, executor of Ogilvie v. Wright		326
Millet's case	II.	82
Montbailly's case	II.	25

N.

Nairn and Ogilvie's case	II.	265
Noiseu's case		329
Norkott, Jane, murder of	II.	77

O.

Ogilvie and Nairn's case	II.	233
Oliver, Benson v.		325
Overbury, Sir Thomas, case of	II.	261, 360

P.

Paine's case		175
Palmer, Fish v.		177
Parker's case		333
Parkinson, a lunatic, in the matter of		368
Parnther, Attorney General v.		367
Paulet's case	II.	70
Perdriat's case		140
Pizzy and Codd, case of		278
Pourpre's case	II.	42
Poyntz's case		324
Prince v. Hazleton		379

Q.

Queen v. Clerk	II.	31
----------------	-----	----

R.	Page.
Radwell's case	302
Renee's case	301
Reynolds v. Reynolds	327
Richardson, Dobie v.	178
Rose, Maria, case of	296
Ruston's case	382
Rydgeway, Cicely De, case of	29
S.	
Salisbury, King v.	II. 120
Sellis' case	II. 76
Slymbridge's case	105
Smith's case	86
Standfield's case	II. 46
Stanwix, General, case of	317
Stringer's case	II. 23
T.	
Taylor, Commonwealth v.	219
Taylor and others v. Deploch	318
Thecar's case	306
Thompson, Commonwealth v.	II. 388
Thynne's case	II. 120
Tickner's case	II. 127
Tinckler's case	216
Travers, King v.	88
V.	
Van Alst v. Hunter	381
Van Duzen, Jackson ex dem. Van Duzen and others v.	381
W.	
Wallop <i>ex parte</i>	105
Weeks' case	II. 67
Wendell, a lunatic, in the matter of	364
Whistelo's case	307
Whiting's case	II. 275
Willoughby's case	104
Woodburne and Coke's case	125
Wright, M'Comb, executor v.	326

I N D E X.

A.

	Page.
<i>Abdomen</i> , examination of the	II. 20
Wounds of the	II. 113
Enlargement of, in pregnancy	108
<i>Abortion</i> ,	197
Proofs of, derived from the mother	203
Appearances on dissection in the mother, of	204
Examination of the living mother, in cases of	206
Causes of	207
Criminal means—general	207
Venesection	208
Cathartics and Emetics	209
Diuretics	210
Emmenagogues	211
Ergot	211
Mercury	213
Savine	214
Criminal means—local	215
Danger of death to the mother in cases of criminal	217
Causes of, involuntary	219
Examination of the fœtus in cases of	220
Circumstantial evidence	221
Laws against criminal, in various countries	275 to 279
<i>Absorption</i> , introduction of poisons by	II. 133
<i>Abstinence</i> , feigned	28
<i>Access</i> , when presumed	51
<i>Accidental death</i> by wounding	II. 75
<i>Acids concentrated</i> , poisoning by	II. 327
<i>Acid</i> , arsenic, poisoning by	II. 257
Arsenious poisoning by	II. 180
Citric	II. 398
Fluoric poisoning by	II. 345
Muriatic poisoning by	II. 345
Nitric poisoning by	II. 333
Meconic	II. 399
Oxalic poisoning by	II. 392
Oxymuriatic (chlorine) poisoning by	II. 355
Phosphoric poisoning by	II. 345
Phosphorous poisoning by	II. 345
Prussic poisoning by	II. 406
Sulphuric poisoning by	II. 327
Sulphurous poisoning by	II. 345, 357
Tartaric	II. 398
<i>Aconitum Napellus</i> , poisoning by	II. 380
Effects of, on man	II. 380
on animals	II. 381
Large doses of, taken	II. 130
<i>Aconitum anthora</i> poisonous	} II. 382
<i>Aconitum cammarum</i> poisonous	
<i>Aconitum lycoctonum</i> poisonous	
<i>Acrid poisons</i>	II. 136, 138, 157, 371
Treatment of persons who have taken	II. 392

	Page.
<i>Actæa spicata</i> , a poison	II. 426
<i>Adipocire</i> , formation of, a legal question	II. 63
<i>Ethusa cynapium</i> , poisoning by	II. 444
<i>Age</i> ,	324
Of criminal responsibility	94, 325
Of absent persons, how long absence is a proof of death	325
When pregnancy is possible	120, 326
Determination of	324
<i>Air</i> , deprived of oxygen, its effects	II. 32
<i>Albumen</i> , an antidote to corrosive sublimate.	II. 275
to copper	II. 297
<i>Alcohol</i> , poisoning by	II. 440
Effects of, on animals	II. 440
<i>Algalia</i> , a supposed antidote to the bite of serpents	II. 459
<i>Alimentary canal</i> , examination of, in poisoning	II. 158, 161
<i>Alkalies caustic</i> poisoning by	II. 345
carbonated poisoning by	II. 345
<i>Almonds</i> , oil of bitter, poisoning by	II. 424
Analysis of	II. 425
<i>Ammonia</i> , poisoning by	II. 347
An antidote against the bite of serpents	II. 459
A test of copper	II. 295
A test of corrosive sublimate	II. 268
A test of lead	II. 323
A test of nitrate of bismuth	II. 308
A test of zinc	II. 299
Use of, in detecting arsenic	II. 211
<i>Hydrosulphuret of</i> , use in detecting arsenic	II. 210
A test of corrosive sublimate	II. 268
<i>Ammonia</i> , muriate of, poisoning by	II. 354
<i>Ammoniaco-nitrate of silver</i> , a test of arsenic	II. 213
<i>Ammoniuret of copper</i> , a test of arsenic	II. 203
<i>Amygdalus communis</i>	II. 410, 424
<i>Amygdalus persica</i>	II. 410, 425
<i>Anagallis arvensis</i> , poisoning by	II. 443
<i>Androgyna</i> , cases of	65
<i>Androgyni</i> , cases of	67
<i>Anemone nemorosa</i> , poisoning by	II. 380
<i>Anemone pratensis</i> , poisoning by	II. 380
<i>Anemone pulsatilla</i> , poisoning by	II. 379
<i>Anemone sylvestris</i> , poisoning by	II. 380
<i>Angustura</i> , false	II. 436
<i>Animal poisons</i>	II. 452
<i>Antidotes</i> , for arsenic	II. 253
for antimony	II. 287
for corrosive sublimate	II. 275
<i>Antimony</i>	II. 230
<i>Tartarised</i> poisoning by	II. 281
<i>Oxide and glass of</i> , poisoning by	II. 287
<i>Muriate of</i> , poisoning by	II. 287
<i>Wine of</i> , poisoning by	II. 288
<i>Vapours</i>	II. 289
(See <i>Tartar emetic</i>)	
<i>Apocynum</i> , species of, poisonous	II. 389
<i>Apoplexy</i> , death by	II. 11
feigned	17
<i>Aqua fortis</i> , poisoning by	II. 333
<i>Aqua toffana</i> ,	II. 148
<i>Aristolochia clematitis</i> , poisoning by	II. 443
<i>Serpentaria</i> , a supposed antidote for the bite of serpents	II. 459

	Page.
<i>Arsenic (metallic)</i> when alloyed, innoxious	II. 259
Garlic smell of	II. 221
Whitens copper when heated	II. 222
<i>Arsenic acid</i> , effects of, on animals	II. 197, 257
Tests of	II. 257
<i>Arsenic, black oxide of</i> , its effects	II. 258
<i>Arsenic, sulphurets of</i> , deemed innoxious, when native	II. 257
Artificial, poisonous	II. 257
<i>Arsenical hydrogen gas</i> , its effects	II. 259
<i>Arsenical vapours</i> , effects of	II. 190
<i>Arseniatcs</i> , tests of	II. 257
<i>Arsenious acid</i> , or white oxide of arsenic	II. 180
Its preparation destructive to workmen	II. 180
Poisoning by internal use of	II. 181
Symptoms of lowest degree of poisoning by	II. 182
Second degree of poisoning by	II. 183
Third degree of poisoning by	II. 184
Symptoms, general list of, from taking	II. 186
Poisoning by injection of	II. 186
Poisoning by external application of	II. 188
Poisoning by inhaling vapours of	II. 190
Appearances on dissection in 2d deg. of poisoning by	II. 191
3d deg. of poisoning by	II. 193
Introduced after death, effects of	II. 165
Effects on animals of	II. 196
Chemical tests	II. 202
Ammoniaret of copper	II. 203
Chromate of potash	II. 216
Garlic smell when reduced	II. 220
Iodine	II. 215
Lime-water	II. 203
Nitrate of potash	II. 215
Nitrate of silver	II. 210
Reduction, with black flux	II. 218
Reduction by galvanic pile	II. 224
Sulphate of copper	II. 204
Sulphuretted hydrogen	II. 207
Tombac alloy	II. 222
Vapours of, inodorous	II. 221
Solubility	II. 202
Effects of tests on mixtures of, with animal and vegetable substances	II. 225
Difficulty of detecting, by chemical proofs	II. 228
Antidotes and treatment in cases of poisoning by	II. 253
Sale of, should be regulated	II. 256
Cases of poisoning by	II. 140, 141, 151, 152, 160
See also article <i>arsenious acid</i> passim.	
A test of copper	II. 295
A test of nitrate of silver	II. 304
<i>Arsenite of potash</i>	II. 256
An antidote to bites of serpents	II. 459
	II. 257
<i>Arsenites</i> , tests of	II. 391
<i>Arum maculatum</i> , poisoning by	II. 390
<i>Arum</i> , other species of, poisonous	II. 389
<i>Asclepias gigantea</i> , and <i>vincetoxicum</i> , poisoning by	II. 12
<i>Asphyxia idiopathica</i>	II. 34
Of privies	II. 136, 139, 149
<i>Astringent poisons</i>	II. 160
Appearances on dissection	II. 427
<i>Atropa belladonna</i> , poisoning by	II. 428
<i>Atropia</i>	

	Page.
<i>Ava</i> , or <i>Yava</i> root of Otaheite, poisonous	II. 449
<i>Azalea pontica</i> , a narcotic poison	II. 426
B.	
<i>Bandi</i> , Countess, case of	II. 84
<i>Barytes</i> and its salts, poisoning by	II. 348
<i>carbonate</i> of—effects of	II. 348
tests of	II. 349
<i>muriate</i> effects of	II. 348
tests of	II. 349
<i>pure</i> , effects of	II. 348
Antidotes	II. 350
<i>Bee</i> , sting of	II. 460
<i>Bee</i> , <i>Humble</i> , sting of	II. 460
<i>Belladonna</i> (See <i>atropa Belladonna</i>)	II. 417
<i>Bertholi</i> , Priest, case of	II. 87
<i>Bile</i> , acrid, may poison animals	II. 144
<i>Birth</i> , legal time of, by the Roman law	299
in France	300
in Scotland	301
rapid, instances of	155, 156, 270
<i>Bismuth</i> , <i>nitrate</i> of, poisoning by	II. 307
effect on animals	II. 308
Tests	II. 308
effect on aliments and drinks	II. 309
<i>oxide</i> of, effect on copper when heated	II. 245
<i>Bites</i> of poisonous serpents	II. 455
<i>Bitter almonds</i> . (see <i>Almonds</i>)	II. 424
<i>Black flux</i> , reduction of arsenious acid with	II. 218
<i>Blindness</i> , feigned	23
<i>Blood</i> , vomiting of, feigned	12
<i>Bodies</i> , combustion of human	II. 84
<i>Brain</i> , dissection of the	II. 18
Injuries of the	II. 107
<i>Brinvillier</i> , Marchioness De, account of	II. 148
<i>Brucea antidysenterica</i> , poisoning by	II. 436
Effects on man and animals	II. 437
Characters of	II. 436
<i>Brucine</i> , a vegetable alkali	II. 437
<i>Bryonia dioica</i> , poisoning by	II. 373
<i>Bullet</i> , murder discovered by examination of	II. 75
<i>Burning</i> , (see <i>Combustion</i>)	II. 83
C	
<i>Cachexia</i> , feigned	18
<i>Cæsarean operation</i> ,	178
Laws concerning property, when infant is extracted by the	179
<i>Calculi</i> , feigned excretion of	10
<i>Calcutta</i> , black hole of	II. 32
<i>Calidium seguinum</i> ,	II. 448
<i>Caltā palustris</i> , an acrid poison	II. 390
<i>Calomel</i> , characters of	II. 273
Corrosive sublimate converted into	II. 273
<i>Camphor</i> , its effects	II. 437
<i>Cancer</i> , feigned	11

	Page.
<i>Cantharides</i> , effects in producing abortion,	211
poisoning by	II. 452
symptoms	II. 453
Appearances on dissection	II. 454
Treatment in	II. 454
<i>Cantharidin</i> ,	II. 452
<i>Carbonic acid gas</i> , death from inhaling	II. 31
Modes in which it is generated	II. 31
Effects produced by	II. 33
Appearances on dissection	II. 34
<i>Carbonic oxide</i> , effects on the human system	II. 359
<i>Carburetted hydrogen gas</i> ,	II. 33
<i>Caruncula myrtiformes</i>	77
<i>Castration</i> ,	47
<i>Catalepsy</i> , feigned	20
<i>Cathartics</i> , effects of in producing abortion	209
<i>Caustic alkalies</i> , poisoning by	II. 345
<i>Caustic lunar</i> , (see silver)	II. 303
<i>Cerbera ahovai and manghas</i> , noxious effects of	II. 387
<i>Certificates of exemption</i> from military duty	42
<i>Ceruse</i> , poisoning by	II. 313
<i>Chærophyllum sylvestre</i> , poisoning by	II. 445
<i>Chancellor</i> , his jurisdiction over idiots and lunatics	361
<i>Charcoal</i> , fumes of, noxious	II. 32
<i>Chelidonium glaucium and majus</i> , poisoning by	II. 385
<i>Chemical examination</i> of poisons	II. 142, 161
Of insoluble mineral substances	II. 367
Of soluble mineral substances	II. 365
<i>Cherry laurel water</i> , poisoning by	II. 401
<i>Child bearing</i> , earliest period of	120, 327
Latest period of	120, 326
(See <i>Gestation</i> .)	
<i>Child murder</i> , (see <i>Infanticide</i>)	
<i>Children</i> , legitimacy of	288
<i>Chlorine</i> , its power in removing the colouring matter of substances	II. 227
poisoning by	II. 355
<i>Cholera morbus</i> , symptoms of, distinguishing it from poisons	II. 168 169
<i>Chromate of potash</i> , a test of arsenic	II. 216
A test of bismuth	II. 308
A test of copper	II. 295
A test of lead	II. 323
A test of verdigris	II. 295
A test of zinc	II. 299
<i>Cicuta maculata</i> , poisoning by	II. 435
<i>Cicuta virosa</i> , poisoning by	II. 434
<i>Cider</i> , danger of lead in	II. 320
<i>Circulation</i> in the fœtus	222
<i>Citric acid</i> ,	II. 398
<i>Classification</i> of poisons	II. 135
<i>Clematis vitalba</i> , and other species, poisoning by	II. 389
<i>Clitoris</i> , enlargement of the	67
<i>Cocculus indicus</i> , poisoning by	II. 437
Effects of, on fish and other animals	II. 438
<i>Colchicum autumnale</i> , poisoning by	II. 384
<i>Cold</i> , death from exposure to	II. 12
Death of new born infant, by exposure to	260
<i>Cold water</i> , death from drinking when heated	II. 13
<i>Colic</i> , Devonshire	II. 321
<i>Colica pictorum</i> , its symptoms and cause	II. 322
<i>Colocynth</i> , poisoning by	II. 375

	<i>Page.</i>
<i>Coluber berus</i> , bite of (see <i>Viper</i>)	11. 455
<i>Combustion</i> , spontaneous human, cases of	11. 84 to 88
Causes assigned for	11. 88 89
<i>Commission</i> , infanticide by	264
<i>Commission</i> of lunacy	362
<i>Compos</i> or <i>non compos</i> ,	361
<i>Concealed</i> pregnancy	106, 119, 120
Delivery	136, 141
Insanity	355
<i>Conception</i> , (see <i>Pregnancy</i>)	
<i>Congestion</i> , of blood in the viscera	11. 24
<i>Conium maculatum</i> , poisoning by	11. 433
<i>Consent</i> , age of	87
Not necessary to impregnation	101
<i>Convolvulus scammonia</i> ,	11. 387
<i>Convulsions</i> , feigned	19
<i>Copper</i> ,	11. 289
<i>Metallic</i> , its action on the stomach	11. 289
Facility of its oxidation	11. 290
<i>Carbonate and oxide</i> of, poisoning by	11. 291
<i>Green carbonate</i> of, (verdigris) poisoning by	11. 292
Symptoms	11. 293
Appearances on dissection	11. 294
Effect on animals	11. 294
Chemical tests	11. 295
Effects on animal & vegetable substances	11. 296
Antidotes	11. 297
Acetate, sulphate, muriate of, poisoning by	11. 297
Whitened by arsenic	11. 222
Whitened by mercury	11. 269
Utensils dangerous	11. 292
Oxidation of, by various aliments and drinks	11. 292 293
<i>Ammoniaret</i> of, a test of arsenic	11. 203
Sulphate of, a test of arsenic	11. 204
Sulphate of, a test of Oxalic acid	11. 397
<i>Coriaria myrtifolia</i> , poisoning by	11. 445
<i>Coroner</i> , duty of the	11. 10
Inquisition of, quashed	11. 31
<i>Corpora lutea</i> , how far a sign of impregnation	145, 150, 206
<i>Corrosive poisons</i> , catalogue of	11. 135
Symptoms of	11. 138
Appearances on dissection	11. 157
<i>Corrosive sublimate</i> ,	11. 259
Internally given	11. 259
Effects in considerable doses	11. 259
Symptoms of poisoning by	11. 260
Administered by injection	11. 261
Effects of, externally applied	11. 262
Appearances on dissection	11. 263
Effects on animals	11. 264
Chemical proofs	11. 267
Its reduction with charcoal	11. 267
With caustic potash	11. 267
Test by volatilization	11. 268
Test by sublimation	11. 268
Application of a plate of copper	11. 268, 269
Lime water	11. 268
Carbonate of potash	11. 268
Caustic potash	11. 268
Hydro-sulphuret of ammonia	11. 268

	Page.
Sulphuretted hydrogen	II. 269
Nitrate of silver	II. 269
Muriate of tin	II. 269
Prussiate of potash	II. 269
Sylvester's galvanic test	II. 269
Iodine	II. 270
Action of animal and vegetable substances on	II. 271
Effect of tests on mixtures of these	II. 271, 272
Converted into calomel in the stomach	II. 273
Antidotes and treatment	II. 275
Smell of vapour of	II. 268
Taken with impunity	II. 132
Effects of, introduced into the dead body	II. 165
Examination of stomach for	II. 274
A test of muriate of tin	II. 302
<i>Coventry act</i> ,	II. 126
<i>Crab</i> , occasionally poisonous	II. 465
<i>Crotalus horridus</i> , (see Rattlesnake)	
<i>Croton tiglium</i> , poisoning by	II. 390
<i>Crying</i> , a necessary proof of life in new-born children in Scotland	178
Not a necessary proof of life in England	175
Of the child in the womb	243
<i>Cucumis colocynthis</i> ,	II. 374
<i>Curare</i> , a South American poison	II. 448
Account of its preparation	II. 448
<i>Curtesy</i> , tenant by the	175
Effect of cæsarean operation on	179
<i>Cyclamen europæum</i> , poisoning by	II. 387
<i>Cymbalaria</i> , an ingredient in slow poisons	II. 150
<i>Cynanchum erectum</i> , and <i>vimiale</i> , poisonous	II. 387

D.

<i>Daniel's test</i> , in cases of infanticide	256
<i>Daphne gnidium</i> , and other species, poisoning by	II. 376
<i>Darnel</i> , mixed with bread, noxious	II. 443
<i>Datura stramonium</i> , poisoning by	II. 429
Symptoms of	II. 430
<i>Datura tatula</i> , and other species, poisonous	II. 430
<i>Deaf and dumb</i> , may be witnesses	382
May be tried for crimes	384
May obtain possession of their estate	383
<i>Deaf, dumb and blind</i> , a person born, is an idiot	382
A person grown so, non compos	382
<i>Deafness</i> , feigned	24
<i>Deafness and dumbness</i> , feigned	25
<i>Death</i> , sudden, causes of	II. 11, 168
By burning	II. 83
By cold	II. 12
By drinking cold water	II. 13
By drowning	II. 51
By exposure to noxious gases	II. 12, 31, 355
By hanging	II. 36
By hunger	II. 90
By injuries to the head, after a long period	II. 108
By intoxication	II. 13, 440
By lightning	II. 13
By smothering	II. 72
By strangling	II. 44
By wounds	II. 73

<i>Drowning</i> , death by	II.	51
Signs of death by	II.	52
Signs of death previous to	II.	53
Cause of death by	II.	61
Examination of the different signs of death by	II.	53 to 61
Suicide by	II.	70
of new born children		266
<i>Drugs</i> poisonous, sale of	II.	256
<i>Drunkenness</i> , does not excuse from punishment for crimes		375
<i>Dumbness</i> , feigned		25

E.

<i>Eau de Noyau</i> , sometimes poisonous,	II.	425
<i>Eau medicinale</i> of Huson,	II.	384
<i>Ecchymosis</i> , meaning of the term	II.	22
value of this sign in cases of infanticide		225
<i>Elaterium</i> , its nature and effects	II.	374
<i>Elatin</i> ,	II.	374
<i>Emetic Tartar</i> , poisoning by	II.	281
<i>Emetics</i> , effects of, in producing abortion,		209
<i>Emissio Seminis</i> in cases of rape		95
<i>Emphysema</i> , feigned,		9
<i>Enamel powder</i> , whether poisonous	II.	360
<i>Epilepsy</i> , feigned		17
often causes insanity		375
often complicated with insanity		375
<i>Equisetum hyemale</i>	II.	391
<i>Ergot</i> , its effects on the human system,	II.	441, 442
its botanical character,	II.	443
its effects in producing abortion		211
Diseases produced by	II.	442
<i>Ervum Errilia</i> , a narcotic poison,	II.	426
<i>Ether</i> , sulphuric, effects on animals,	II.	441
<i>Euphorbia officinarum</i> , poisoning by	II.	377
<i>lathyris</i> , and other species, poisonous	II.	378
<i>Euphorbium</i> ,	II.	377
<i>Execution</i> , pregnancy a plea in bar of		105
supervening of insanity, to prevent		363
<i>Exemption</i> from military duty by disease		34
<i>Extra uterine fetus</i> , whether ever born alive		183
<i>Extra uterine pregnancy</i> , symptoms of		118
<i>Extremities</i> , wounds of the	II.	118

F.

<i>Face</i> , wounds of the	II.	109
<i>Fallopian Tubes</i> , state of, after delivery		144
<i>Fasting</i> , pretended		28
<i>Feigned diseases</i> ,		1
rules for detection,		2
<i>Feigned insanity</i> ,		350
rules for detection of		351
<i>Fevers</i> , feigned		13
<i>Fishes</i> , poisonous	II.	461
list of	II.	462
Treatment of persons who have eaten,	II.	464
<i>Flux</i> , Black, chemical use of	II.	218
its composition	II.	218

<i>Fetus</i> , extra uterine	183
size of at various periods	162 to 166
skeleton of, at various periods	166
weight of, at various periods	167
length of at various periods	170
signs of the maturity of	171
signs of the immaturity of	171
Dissection of	172
Dissection of, in cases of infanticide	271
Viability of	172
at what age it has survived,	173
its living, meaning of, in the laws of various countries	174
Tenant by the curtesy, holds by	175
<i>Food</i> , adulterated with lead,	II. 319
<i>Foundling Hospitals</i> , examination of their utility,	283
Mortality in them	284 to 287
<i>Fowler's Solution</i>	II. 256, 459
<i>Foxglove</i>	II. 432
<i>Fritillaria imperialis</i>	II. 387

G.

<i>Galls</i> , Tincture of, a test of antimony	II. 286
a test of acetate of lead	II. 324
a test of nitrate of bismuth	II. 308
<i>Galvanism</i> , reduction of arsenious acid by	II. 224
Reduction of corrosive sublimate by	II. 269
<i>Gamboge</i> , its effects on animals	II. 376
<i>Gas</i> , carbonic acid, its effects	II. 31
Nitrous acid, its effects	II. 356
Sulphuretted hydrogen, its effects	II. 34
Sulphurous acid, its effects	II. 357
<i>Gases</i> , noxious, death by exposure to	II. 12, 31, 335
<i>Gastric juice</i> , perforation of the stomach by	II. 173
Appearance of the perforations by	II. 175
<i>Getseminum nitidum</i> , a narcotic poison	II. 426
<i>Gestation</i> , ordinary period of	288
In animals	289
Whether irregular	290
Protracted	292
Longest period of	303
Shortest period of	292
<i>Glass</i> , powdered, effects of	II. 360
<i>Gluten</i> , an antidote of corrosive sublimate	II. 276
<i>Gold</i> , muriate of, poisoning by	II. 305
Tests	II. 306
Effects of, on animal and vegetable substances	II. 306
Treatment	II. 306
A test of muriate of tin	II. 302
<i>Fulminating</i> , poisoning by	II. 307
<i>Gratiola officinalis</i> , poisoning by	II. 386
<i>Gravel</i> , feigned	10
<i>Gun-shot wounds</i>	II. 74, 82, 119

H

<i>Hæmatemesis</i> , feigned	12
<i>Hæmaturia</i> , feigned	6
<i>Hæmoptis</i> , feigned	11
<i>Hæmorrhage</i> , as an indication of injury before death	II. 21
Constitutional, cases of	II. 100

	Page.
<i>Hahnemann's wine test</i>	II. 324
<i>Hallucination</i> , definition of	374
Cases of	374
<i>Hanging</i> , death by	II. 36
Modes in which it is induced	II. 36, 38
Appearances on dissection	II. 37, 39
Murder by	II. 41
Suicide by	II. 41
Murder of new-born children by	266
<i>Head</i> , wounds of the	II. 106 to 109
<i>Heart</i> , wounds of the	II. 112
<i>Hellebore</i> , black, poisoning by	II. 372
Fætid, poisoning by	II. 373
White, poisoning by	II. 371
<i>Hemlock</i> , poisoning by	II. 433
American, poisoning by	II. 435
Water, poisoning by	II. 434
<i>Henbane</i> , poisoning by	II. 405
<i>Hermaphrodites</i> ,	60
Non-existence of	61
Supposed cases of	61
Laws concerning	70, 72
	9
<i>Hernia</i> , feigned	II. 447
<i>Hippomane mancinella</i> , poisonous	II. 467
<i>Honey</i> , poisonous	II. 467
Symptoms from its use	II. 460
<i>Hornet</i> , sting of, poisonous	283
<i>Hospitals</i> , foundling	II. 460
<i>Humble bee</i> , sting of	II. 90
<i>Hunger</i> , death by	II. 90
Appearances on dissection	109, 123, 148, 205
<i>Hydatids</i> in the uterus	123
Symptoms of	9
<i>Hydrocephalus</i> , feigned	II. 389
<i>Hydrocotile vulgaris</i> , an acrid poison	
<i>Hydrocyanic acid</i> , (see prussic acid)	II. 351
<i>Hydrogenated sulphuret of potash</i> , poisoning by	II. 468
<i>Hydrophobia</i> ,	244
<i>Hydrostatic test</i> of infanticide	244 to 249
Objections to, and examination of these	249
Directions for performing	73
<i>Hymen</i> , existence of	74
As a proof of virginity	II. 406
<i>Hyoscyamus albus</i> , poisoning by	II. 405
<i>niger</i> , poisoning by	373
<i>Hypochondriasis</i> , its characteristics	374
Distinction between it and melancholy	16
<i>Hysteria</i> , feigned	
I	
<i>Identity</i>	327
Disputed cases of	328 to 333
Use of physical signs in determining	332
<i>Idiosyncrasy</i> , its effects	II. 132, 154
<i>Idiotism</i> , its frequency in some countries	347
Characteristics of	347
Its complication with other diseases	348
Feigned	353
<i>Idiots</i> , laws concerning	361
Definition of, in law	361
Method of proving persons	362
Persons born deaf, dumb and blind, are	392

	<i>Page</i>
<i>Immature fœtus</i> , signs of	171
<i>Impotence</i> , a cause of divorce	44
Laws concerning it as a cause	44
Causes of, in the male	46
Absolute	46
Accidental	50
Curable	59
Diseases that may cause temporary	53
Diseases that do not cause temporary	53
Causes of, in the female	54
Curable	54
Incurable	56
<i>Impregnation</i> , during sleep	135
In cases of rape	101
<i>Incontinence of urine</i> , feigned	6
<i>Ingestion</i> , its symptoms often resembling poisoning	II. 155
<i>Infant</i> cannot make a valid will	379
<i>Infanticide</i> ,	184
History of, in various countries	185 to 196
Definition of	197
Murder of the fœtus in utero	197
Vitality of the fœtus	197
Proofs of the murder of the fœtus (see <i>Abortion</i>)	
Proofs of the child being born alive	222
Appearance of the blood	223
Presence of blood in the pulmonary vessels	223
Changes in the vascular system	224
Ecchymoses	225
Proofs of the child having respired after birth	225
Floating of the lungs in water	226
Objections to this test	228
Examination of these objections	228
Directions for performing this test	249
Ploucquet's test	236, 252
Objections to it	252
Daniel's test	256
Descent of the diaphragm	256
Diminution in the size of the liver	256
Discharge of the meconium	258
State of the bladder	259
Means by which death may be caused	259
By omission	260
By commission	264
Circumstantial evidence	269
Dissection of the child	271
Laws against, in various countries	279 to 283
<i>Insanity</i>	335
Symptoms of	336
Causes of	349
Feigned	350
Concealed	355
Rules for detection of feigned and concealed	351 to 361
Excuses from crimes	362
Incapacitates from making a will	380
(See <i>mania</i> and <i>melancholia</i>)	
<i>Insensibility</i> during delivery	151
<i>Intoxication</i> , death from	II. 13
Symptoms indicative of danger	II. 440
Treatment	II. 451
Does not excuse from punishment	375
A frequent cause of insanity	375

	Page.
<i>Iodine</i> , a test of arsenious acid	II. 215
A test of corrosive sublimate	II. 270
Poisoning by	II. 320
Effects of, in bronchocele	II. 327
<i>Iron</i> , sulphate of, a test of muriate of gold	II. 306
Poisonous to animals	II. 309
<i>Irritative poisons</i> ,	II. 371
J.	
<i>Jatropha curcas</i> and <i>manihot</i> , poisoning by	II. 386
<i>Jaundice</i> , feigned	12
<i>Juniper</i> , oil of, effects of, in producing abortion	211
<i>Juniperus sabinus</i> , effects of, in producing abortion	214
poisoning by	II. 378
K.	
<i>Kalmia latifolia</i> , poisoning by	II. 446
Renders honey poisonous	II. 467
Renders pheasants poisonous	II. 469
L.	
<i>Lactuca virosa</i> , a narcotic poison	II. 425
<i>Lathyrus cicera</i> , a narcotic poison	II. 426
<i>Laurel water</i> , poisoning by	II. 411
<i>Laurus camphora</i>	II. 437
<i>Lead</i> , poisoning by	II. 310
<i>Acetate</i> of, symptoms of poisoning by	II. 311
Sometimes innoxious	II. 311
Effect on animals	II. 312
<i>Carbonate</i> of, poisoning by	II. 313
Water impregnated with	II. 317
<i>Litharge</i> , its effects	II. 318
External application of	II. 318
Food adulterated with	II. 319
Earthen vessels glazed with, noxious	II. 319
Cider adulterated with	II. 320
Rum adulterated with	II. 321
Syrups adulterated with	II. 321
Wines adulterated with	II. 320
Emanations of	II. 321
Tests of the various salts of	II. 323
Antidotes of	II. 325
<i>Legitimacy</i>	288
Laws of various countries on	299
<i>Lightning</i> , death by	II. 13
Appearances from	II. 13
<i>Lime kilns</i> , their exhalations poisonous	II. 32
<i>Lime</i> , muriate of, a test of oxalic acid	II. 397
<i>Lime</i> , quick, poisoning by	II. 350
<i>Lime water</i> , a test of arsenious acid	II. 203
Of corrosive sublimate	II. 268
Of tartar emetic	II. 285
<i>Lineæ albicantes</i> , a sign of delivery	139
<i>Litharge</i> , poisoning by	II. 318
Adulteration of wines by	II. 320

	<i>Page.</i>
<i>Liver of sulphur</i> , poisoning by	II. 351
Antidote	II. 352
<i>Lobelia inflata</i> , and other species, poisoning by	II. 388
<i>Lobster</i> , sometimes noxious	II. 465
<i>Lolium temulentum</i> , poisoning by	II. 443
<i>Lucid interval</i> , definition of formerly	364
At the present day	365
Application of, in civil cases	367
Application of, in criminal cases	368
Difficulty of ascertaining	370
<i>Lunacy</i> , (See insanity)	
<i>Lungs</i> , their state in new born infants	225
Examination of	226
Weight of	252

M.

<i>Mackerel</i> , sometimes noxious	II. 465
<i>Magnesia</i> , sulphate of, antidote of lead	II. 325
<i>Maiming</i> , feigned	7
<i>Mania</i>	335
Symptoms of	336 to 341
Duration of paroxysms of	341
Feigned	351
Concealed	356
<i>Mayhem</i> , definition of	II. 124
<i>Meconic acid</i>	II. 399
<i>Medico-legal dissection</i> , its importance	II. 15
Rules for conducting	II. 16 to 20
In cases of poisoning	II. 156
In cases of rape	85
<i>Melancholy</i> , its symptoms	343
time of life when it occurs,	343
feigned	353
diagnosis between, and hypochondriasis	373
<i>Menses</i> , suppression of, how far a sign of pregnancy,	111
diseases that produce	111
<i>Menstruation</i> , feigned	12, 112
<i>Mental alienation</i> .	334
<i>Mercurialis perennis</i> , poisoning by,	II. 445
<i>Mercury</i>	II. 259
metallic, whether a poison,	II. 278
red oxide of	II. 276
red precipitate of	II. 276
vapours of, their effects,	II. 277
salivation by, whether ever renewed	II. 275
effects in procuring abortion	213
(See <i>Corrosive sublimate</i> .)	
<i>Milk</i> , an antidote of muriate of tin	II. 303
secretion of, how far a sign of pregnancy	110
how far a sign of delivery	138
<i>Mineral poisons</i>	II. 179
<i>Moles</i> , definition of	121
symptoms	121
whether the result of conception	122
<i>Momordica elaterium</i> ,	II. 373
<i>Monomania</i> , symptoms of	342
<i>Monsters</i> ,	180
division of	181
laws concerning their inheriting	182
<i>Morphia</i>	II. 399

<i>Muriate of ammonia</i> , poisoning by	II. 354
<i>Muriatic acid</i> , poisoning by	II. 345
a test of lead,	II. 323
a test of silver,	II. 304
<i>Muscles</i> , poisoning by	II. 464
<i>Mushrooms</i> , poisonous	II. 438
symptoms of	II. 438
appearances on dissection	II. 439
treatment	II. 451
<i>Mutilation</i> , laws on	II. 123 to 128

N.

<i>Narcissus pseudo-narcissus</i> , poisoning by	II. 386
<i>Narcotic poisons</i> ,	II. 136, 398
symptoms of	II. 138
appearances on dissection	II. 159
treatment of	II. 403
<i>Narcotico-acrid poisons</i>	II. 136, 427
symptoms	II. 139, 450
appearances on dissection	II. 159
treatment	II. 451
<i>Narcotine</i> ,	II. 399
<i>Navel-string</i> , (see Umbilical cord)	
<i>Near-sightedness</i> , feigned	22
<i>Neck</i> , dislocation of, in hanging	II. 38
wounds of the	II. 110
<i>Nerium oleander</i> , poisoning by	II. 444
<i>Nicotiana tabacum</i> , poisoning by	II. 430
<i>Nitrate of silver</i> , (See silver)	
<i>Nitre</i> , poisoning by	II. 352
(See Potash.)	
<i>Nitric acid</i> , poisoning by	II. 334
division of poisoning into four classes	II. 334
symptoms of each	II. 334 to 339
appearances on dissection	II. 339
chemical proofs of	II. 343
treatment	II. 344
appearances, produced by, on the dead body	II. 165
<i>Nitrogen</i> , poisoning by	II. 358
<i>Nitrous acid gas</i> , poisoning by	II. 356
<i>Non compos</i> , (see Insanity.)	
<i>Nostalgia</i> ,	375
feigned	22
<i>Noxious inhalations</i> , death from	II. 31
<i>Nuncupative wills</i> ,	378
<i>Nux vomica</i> , its effects	II. 446
<i>Nymphomania</i>	349

O

<i>Oenanthe crocata</i> , poisoning by	II. 382
<i>fistulosa</i> , poisonous	II. 383
<i>Oesophagus</i> , perforation of, in experiments with poisons	II. 143
<i>Old age</i> , debility of mind produced by	376
<i>Omission</i> , infanticide by	260
<i>Onions</i> , detection of, effect of tests on	II. 206, 214, 243
<i>Operation</i> , Cæsarean	178
<i>Ophthalmia</i> , feigned	23
<i>Opium</i> , its compound nature	II. 398
symptoms of poisoning by	II. 399
effects on children	II. 401
appearances on dissection	II. 401
effect on animals	II. 402
treatment	II. 403

	<i>Page.</i>
<i>Ornithorynchus paradoxus</i>	II. 465
<i>Orpiment</i>	II. 257
<i>Ovaria</i> , absence of	58
Essential to puberty	58
<i>Oxalic acid</i> , poisoning by	II. 392
Symptoms of	II. 393
Appearances on dissection of	II. 393
Effect on animals of	II. 395
Tests of	II. 396
Antidotes of	II. 398
<i>Oxymuriatic acid</i> gas, poisoning by	II. 355
<i>Oysters</i> , sometimes noxious	II. 322

P.

<i>Pain</i> , feigned	14
<i>Palsy</i> feigned	17
From lead	II. 322
<i>Paris quadrifolia</i> , a narcotic poison	II. 426
<i>Parturition</i> , (see delivery)	
<i>Passions</i> , violent, effects of	II. 11
<i>Pastinaca sativa</i> , poisoning by	II. 389
<i>Paternity</i> of children, where widows marry immediately	304
<i>Peach</i> , its kernels contain prussic acid	II. 425
<i>Pedicularis palustris</i> , poisonous	II. 387
<i>Peganum harmcla</i> , a narcotic	II. 426
<i>Penis</i> , malconformations of	46
<i>Perforation</i> of the stomach	II. 170
How far a sign of poison	II. 175, 177
<i>Personal identity</i>	327
<i>Persons found dead</i>	II. 9 to 92
From causes independent of murder	II. 11
From noxious inhalations	II. 31
From hanging	II. 36
From strangling	II. 44
From drowning	II. 51
From smothering	II. 72
From wounds	II. 73
From burning	II. 83
From hunger	II. 90
From poisons	II. 156
<i>Pell, Grace</i> , case of	II. 85
<i>Pheasant</i> , sometimes poisonous	II. 466
<i>Phosphorus</i> , poisoning by	II. 325
<i>Physalis somnifera</i> , a narcotic	II. 426
<i>Physometra</i> , case of	124
<i>Phytolacca decandra</i> , poisoning by	II. 390
<i>Picrotoxine</i>	II. 437
<i>Placental mark</i>	153
<i>Platina</i> , nitro-muriate of	II. 327
<i>Ploucquet's test</i> in cases of infanticide	236, 252
<i>Plumbago europæa</i> , an acrid poison	II. 387
<i>Poisons</i>	II. 129
Definition of	II. 130
Mode of action of	II. 131
Resistance to in man	II. 132
Resistance to, in animals	II. 133
Introduction of	II. 133
Classification of Foderè and Orfila	II. 134
Signs of, on the living body	II. 137
Signs of, on the dead body	II. 156

	Page.
Exhibition of, to animals	II. 143
Exhibition of, to persons during sickness	II. 144
Secret and slow	II. 147
Administered to a number at once	II. 151
Diseases resembling the effects of	II. 155
Administered by injection	II. 164
Effects from introducing them into the dead body	II. 165
Appearances that may be mistaken for effects of	II. 169
Animal	II. 452
Mineral	II. 179
Vegetable	II. 369
Acrid or irritative	II. 371
Narcotic	II. 398
Narcotico-acrid	II. 427
Septic	II. 452
<i>Poisonous fishes,</i>	II. 462
<i>Poisonous serpents,</i>	II. 455
Symptoms of the bite of	II. 456
Antidotes to the bite of	II. 458
<i>Polygala senega,</i>	II. 459
<i>Potash, caustic, poisoning by</i>	II. 345
A test of copper	II. 295
A test of corrosive sublimate	II. 268
<i>Carbonate of, poisoning by</i>	II. 345
Appearances on dissection	II. 346
A test of copper	II. 295
A test of corrosive sublimate	II. 268
<i>Chromate of, (see Chromate of potash)</i>	
<i>Hydrogenated sulphuret of, poisoning by</i>	II. 351
<i>Nitrate of, poisoning by</i>	II. 352
Symptoms	II. 353
Effect on animals	II. 354
A test of arsenious acid	II. 215
<i>Prussiate of, a test of copper</i>	II. 295
A test of corrosive sublimate	II. 269
A test of muriate of tin	II. 302
A test of nitrate of bismuth	II. 308
A test of nitrate of silver	II. 304
A test of zinc	II. 299
Has no effect on muriate of gold	II. 306
<i>Pregnancy,</i>	103
Laws on, in civil and criminal cases	104
Signs of	106 to 118
Concealed	106, 119, 120
Laws punishing	279 to 283
Pretended	106, 124
No one certain sign of	117
Extra-uterine	118
Plea of	104, 105
Signs of, on dissection	144
Mistaken for dropsy	109
May be accompanied with dropsy	109
States of the uterus mistaken for	121, 123, 124
Whether female can be ignorant of	131
Signs of the fœtus being living during	158
dead during	159
Following rape	101
Age at which it is possible	326
<i>Prenanthes alba, an antidote to the bite of serpents</i>	II. 459

	<i>Page.</i>
<i>Presumption of survivorship,</i>	308
When mother and child die during delivery	309
In a common accident	312
Roman law concerning	312
Ancient French law concerning	314
Present French law concerning	316
English cases concerning	317
<i>Pretended delivery</i>	136, 142
pregnancy	106, 124
<i>Prolapsus uteri, feigned</i>	9
<i>Prunus avium, its kernels contain prussic acid</i>	II. 410
<i>Prunus lauro-cerasus,</i>	II. 410
<i>Prunus pudus, its bark contains prussic acid</i>	II. 410
<i>Prussic acid, poisoning by</i>	II. 406
Symptoms of	II. 406
Effect on animals	II. 407
Tests	II. 409
Antidotes	II. 409
Vegetables that contain	II. 410
<i>Puberty, instances of premature</i>	325
<i>Putrefaction, degrees of</i>	II. 29
how far compatible with dissection	II. 29
in cases of poisoning	II. 163
its effects may be mistaken for violence	II. 22
the changes, it induces	II. 24, 28
whether an effect of arsenic	II. 194, 199
<i>Putrefying Poisons</i>	II. 137

Q.

<i>Quickening</i>	108
ancient opinion concerning	113, 200
present prevailing opinions concerning	114
period when it occurs	114
the law distinguishes between murder before and after	278
<i>Quick Lime, poisoning by</i>	II. 350
<i>Quicksilver (see Mercury)</i>	

R.

<i>Ranunculus acris, and other species, poisoning by</i>	II. 383, 384
<i>Rape</i>	72
signs of	79
diseases resembling	80
medical examination of	83
possibility of consummation of	83
false accusations of	84
medico-legal dissection in death from	85
committed on infants	87
testimony of infants in cases of	86
penetration, necessary in law	95
during sleep,	100
pregnancy following	101
<i>Rattle snake, effects of the bite of</i>	II. 456
<i>Realgar,</i>	II. 257
<i>Resemblance, in cases of doubtful paternity,</i>	306
<i>Respiration in utero,</i>	243
<i>Rheumatism, feigned</i>	14
<i>Rhododendron chrysanthum, poisoning by</i>	II. 387
<i>Rhus radicans, poisoning by</i>	II. 378
<i>toxicodendron and vernix, poisoning by</i>	II. 379

	Page.
<i>Ricinus communis</i> , effects of	II. 376
<i>Rum.</i> , adulterated with lead	II. 321
<i>Ruta graveolens</i> , effects	II. 444
<i>Rye</i> , spurred, (see <i>Ergot.</i>)	
S.	
<i>Sal ammoniac</i> , poisoning by	II. 354
<i>Salivation</i> , renewal of without repetition of mercury	II. 275
<i>Sanguinaria canadensis</i> , an acrid narcotic	II. 480
<i>Saturnine emanations</i> , effects of	II. 321
<i>Sarine</i> , (see <i>Juniperus sabina.</i>)	
<i>Scammony</i> , effects of	II. 387
<i>Scilla maritima</i> , effects of	II. 386
<i>Scorpion</i> , bite of	II. 460
<i>Secale cornutum</i> , (see <i>Ergot.</i>)	
<i>Serret poisons</i> ,	II. 147
<i>Sedum acre</i> , poisoning by	II. 387
<i>Septic poisons</i>	II. 137
<i>Sex.</i> doubtful	60
<i>Sighi defective</i> , feigned	22
<i>Silver</i> , ammoniaco-nitrate of	II. 213
<i>Fulminating</i> , poisoning by	II. 305
<i>Nitrate</i> of, poisoning by	II. 303
Effects on animals	II. 303
Tests of	II. 304
Effects on animal and vegetable substances	II. 305
Antidote of	II. 305
A test of arsenious acid	II. 210
A test of corrosive sublimate	II. 267
A test of oxalic acid	II. 397
<i>Sium latifolium</i> , poisonous	II. 445
<i>Slow poisons</i> ,	II. 147, 167
<i>Smothering</i> , death by	II. 72
Of new born infants	268
<i>Snuff</i> , poisoning with	II. 430
<i>Soda</i> , caustic, poisoning by	II. 347
A test of nitrate of silver	II. 304
<i>Carbonate</i> of, a test of lead	II. 323
<i>Phosphate</i> of, a test of nitrate of silver	II. 304
<i>Sulphate</i> of, an antidote to lead	II. 325
	102
<i>Sodomy</i> ,	II. 390
<i>Solanthus quadragonus</i> , and other species, effects of	II. 426
<i>Solanine</i>	II. 425
<i>Solanum dulcamara</i> , effects	21
<i>Somnolency</i> , feigned	II. 460
<i>Spider</i> , bite of	II. 449
<i>Spigelia marilandica</i> , poisoning by	II. 440
<i>Spirits</i> , effects of	II. 84 to 88
<i>Spontaneous combustion</i> ,	
<i>Spurred rye</i> , (see <i>Ergot.</i>)	II. 386
<i>Squill</i> , effects of the	II. 376
<i>Stalagmitis cambogioides</i>	II. 90
<i>Starvation</i> , death by	57
<i>Sterility</i> , causes of	II. 157
<i>Stomach</i> , mucous coat of, separating in cases of poisoning	II. 170
Vascularity of the	II. 172
Perforation of the	II. 177
Rapture of the	II. 429
<i>Stramonium</i> , poisoning by	

	<i>Page.</i>
<i>Strangulation</i> , death by	II. 44
New born children	266
Modes of accomplishing	II. 48
Appearances on dissection in	II. 50
<i>Strychnine</i> , effects of	II. 447
<i>Strychnos ignatia</i> , poisoning by	II. 447
<i>Strychnos nux vomica</i> , poisoning by	II. 447
<i>Sugillation</i> , explained	II. 22
<i>Suicide</i> , death by, its proofs	II. 14
By drowning	II. 70
By hanging	II. 41
By poisoning	II. 154
By strangulation	II. 50
By wounds	II. 73
<i>Sulphurets of arsenic</i> ,	II. 257
<i>Sulphuretted hydrogen gas</i> , death from inhaling	II. 35
Its effects	II. 35
Appearances on dissection	II. 35
A test of arsenious acid	II. 207
A test of acetate of lead	II. 323
A test of corrosive sublimate	II. 269
A test of nitrate of bismuth	II. 308
A test of tartar emetic	II. 285
<i>Sulphuric acid</i> , poisoning by	II. 327
Symptoms	II. 328
Appearances on dissection	II. 329
Effect on animals	II. 332
Chemical proofs	II. 332
A test of copper	II. 295
A test of lead	II. 323
A test of tartar emetic	II. 285
A test of verdigris	II. 295
<i>Sulphurous acid gas</i> , poisoning by	II. 357
<i>Superfetation</i>	125
Cases of	125 to 128
Objections to the doctrine of	129
<i>Suppositious children</i>	104
<i>Survivorship</i> , presumption of	308
<i>Symplocarpus fetida</i>	II. 391
<i>Syncope</i> , feigned	16

T.

<i>Tanacetum vulgare</i>	II. 391
<i>Tansy</i> , oil of, death from taking	II. 391
<i>Tarantula</i> , bite of the	II. 460
<i>Tartar emetic</i> , poisoning by	II. 281
Symptoms of	II. 282
Appearances on dissection	II. 283
Effect on animals	II. 284
Chemical proofs	II. 284
Effect of tests on aliments and drinks	II. 286
Antidotes	II. 287
Solubility of	II. 284
<i>Tartaric acid</i>	II. 398
<i>Taxus Baccata</i> , poisoning by	II. 426
<i>Tenant by the curtesy</i>	175
Law in England concerning	175
in Scotland concerning	178
Cannot hold if child is delivered by cæsarean operation	179

	Page.
<i>Testes</i> , want of	47
Concealed	48
Wasting of	48
<i>Thorax</i> , wounds of the	II. 111
<i>Ticunas</i> , a South American poison	II. 447
<i>Tin</i> , <i>muriate of</i> , poisoning by	II. 301
Chemical proofs	II. 302
Antidote	II. 303
A test of corrosive sublimate	II. 269
A test of <i>muriate of gold</i>	II. 306
<i>Oxide of</i>	II. 303
<i>Toad</i> , poison of the	II. 466
<i>Tobacco</i> , external application of	II. 431
oil of, poisoning by	II. 431
<i>Tofania</i> , poisons of	II. 148

U.

<i>Ulcers</i> , feigned	10
<i>Umbilical cord</i> , danger of not tying	262
Premature ligature of	246
<i>Upas antiar</i> , poisoning by	II. 445
<i>Upas tieute</i>	II. 445
<i>Urine</i> , bloody, feigned	6
Incontinence of, feigned	6
<i>Utero-gestation</i> , (see <i>gestation</i>)	
<i>Uterus</i> , changes in, from pregnancy	107
Examination of, by the touch	15
Double	131
Want of	57

V.

<i>Vagina</i> , state of in the pure female	76
Imperforate	56
Poison introduced into	II. 186
Examination of, in cases of rape	83, 85
Obstructed	54
<i>Vapours</i> , antimonial	II. 289
Arsenical	II. 190
Mercurial	II. 277
<i>Vascularity of the stomach</i>	II. 170
<i>Vegetable poisons</i> ,	II. 369
<i>Venereal disease</i> , its presence in cases of rape	99
<i>Vencsection</i> , its effects in producing abortion	208
<i>Venomous animals</i> ,	II. 460, 465
<i>Veratrine</i> ,	II. 371, 381
<i>Veratrum album</i> , poisoning by	II. 371
<i>Verdigris</i> , (see <i>Copper</i>)	
<i>Viability of a new-born infant</i>	172, 173
<i>Viper</i> , bite of	II. 455
<i>Virginity</i> , signs of	73
<i>Vitriol</i> , oil of, (see <i>Sulphuric acid</i>)	
white, (see <i>Zinc</i>)	
<i>Vomiting</i> , its effect on the symptoms of poisoning	II. 140
Absence of, in cases of poisoning by arsenic	II. 185
Of blood, feigned	12

	W.	Page.
<i>Wasp</i> , sting of		460
<i>Water</i> impregnated with lead	II.	317
<i>Weight</i> of the lungs		252
<i>Wells</i> , danger of descending	II.	33
<i>Wheat</i> , diseased	II.	443
<i>White lead</i> , poisoning by	II.	313
<i>Wills</i> , legal requisites of		378
Nuncupative		378
And testaments		379
Who can make valid		379
Diseases that incapacitate from making valid		380
Method of proving a person competent to make a		381
<i>Wines</i> adulterated with lead	II.	320
Test of	II.	324
<i>Woorara</i> , a South American poison	II.	447
<i>Wounds</i> , examination of	II.	120
on new-born infants		264
Received before death	II.	24
Received after death	II.	24
Of persons dead from	II.	73
On the living body	II.	93
Definition of the term	II.	93
Division of	II.	94
Enumeration of mortal	II.	96
of dangerous	II.	98
of slight	II.	99
Circumstances that aggravate the danger of	II.	99
Of the abdomen	II.	113
Of the extremities	II.	118
Of the face	II.	109
Of the head	II.	106
Of the neck	II.	110
Of the thorax	II.	111

Y.

<i>Yew tree</i> , poisonous	II.	426
-----------------------------	-----	-----

Z.

<i>Zinc</i> , metallic, whether proper for culinary vessels	II.	300
<i>Oxide of</i> , effects	II.	300
<i>Sulphate of</i> ,	II.	298
Effects of, in large doses	II.	298
Appearances on dissection	II.	299
Tests	II.	299
Treatment	II.	299
Action of, on corrosive sublimate	II.	270
Action of, on lead	II.	323



